The Recommendations of the **Atlanta Infill Development Panel**

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Introduction

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In January 2006, City of Atlanta Mayor Shirley Franklin issued an executive order designed to stop infill development long enough to allow the Zoning Committee of the City Council to take up the issue at their 01 Feb 2006 meeting. A number of professional groups delivered prepared statements during the public comment portion of the Zoning Committee meeting.

In a letter to the City Council dated 13 February 2006, Mayor Franklin announced a plan to form a task force under the direction of the Commissioner of Planning and Community Development, Mr. Steve Cover. The letter states the task force will "commence a comprehensive update to the Zoning ordinance".

Mayor Franklin's 13 February 2006 letter calls for the task force to commence within 90 days. In the period between the Mayor's February letter and the anticipated start of the task force in May, a group of professional organizations gathered voluntarily to begin collecting and reviewing information that might be submitted in a supporting role to the Mayor's task force.

Mark Long

The group of professional organizations, referred to herein as the Atlanta Infill Development Panel, first convened on 07 March 2006. The panel met weekly through 25 March 2006 when it held a city-wide reporting forum at the Atlanta Civic Center. Twenty-one out of twenty-four City of Atlanta Neighborhood Planning Units (NPUs) attended the forum to report to the conditions and issues in their respective NPUs to the panel. The work of the panel is based on the input and specific requests from the NPU representatives who spoke and submitted information on behalf of the citizens of the City of Atlanta.

Following the city-wide forum on 25 March 2006, the panel met weekly from noon until three o'clock every Wednesday through 24 May 2006 to review the information presented by the NPUs and prepare recommendations for the Mayor's task force. At the 31 May 2006 Zoning Committee meeting of the City Council, the panel respectfully submitted its recommendations and offered its support and resources to the Mayor's task force, the City Council and Commissioner Cover's office

The organizations partnering to address this issue include the Atlanta Chapter of the American Institute of Architects, the Atlanta Planning Advisory Board, the Greater Atlanta Home Builders Association, the Georgia Chapter of the American Planning Association, the Atlanta Chapter of the National Association of the Remodeling Industry, the Georgia State University Heritage Preservation Program, the Georgia Trust for Historic Preservation, the Atlanta Preservation Center and realtors from various section of the City.

Overview

In the review following the city-wide public reporting forum, the Atlanta Infill Development Panel spent a significant amount of time discussing the information presented by the NPU representatives. The work of the panel included careful study of the existing City of Atlanta zoning ordinance, various legislation from other jurisdictions, model legislation, hypothetical case studies developed by members of the panel and the specific issues effecting infill development within the City of Atlanta. (The issues specific to the City of Atlanta include the evolution of the City of Atlanta zoning ordinance, existing tools for dealing with development issues, Atlanta's challenging topography, economic forces, etc.)

The panel quickly determined that it would work to balance the issue of property rights against any recommendations developed by the panel. As a result, the panel has developed a two-part recommendation. The first portion, the zoning recommendations, is intended to immediately address some of the most troublesome development issues. The second portion, the planning recommendations, is intended to allow neighborhoods to opt into an overlay that would further address development issues that threaten the character and quality of the neighborhoods.

Z Part Q es D Zoning D Ranning

The panel considered a very broad range of potential solutions; however, many of the solutions were discarded because although they provided academic solutions, they were ultimately determined to be unenforceable on a city-wide basis. Instead the recommendations of the panel are intended to fill the gap between the current requirements and the more stringent requirements of an historic overlay.

The panel has purposely avoided publishing any sort of design guidelines for development. While neighborhoods may choose to implement design guidelines and other requirements on a voluntary basis, many NPUs expressed concern that the controls provided by historic (and other available) overlays were seen as too restrictive and thus, very difficult to adopt and maintain.



Rather than focusing on design, the panel made an effort to address the key issues raised by the various NPUs during the public reporting forum. The result is the following two-part recommendation that seeks to address issues like scale, height, ambiguities in the existing requirements, etc.

Zoning Recommendations

The intent for these proposed amendments to the existing City of Atlanta zoning ordinance is for all restrictions to work in a *comprehensive* manner to address the overall mass (bulk) of new buildings on a given lot. Rather then relying on one particular metric, the existing ordinance uses setbacks, maximum height, maximum lot coverage and maximum floor-area-ratios to create a three-dimensional zone on each property. Construction may only occur within the zone created by the ordinance. The proposed amendments fill-in some metrics that have been omitted from previous versions of the zoning ordinance.

The proposed amendments also request further clarification of vague requirements. The zoning ordinance should be revised to the point that various parties working to determine the three-dimensional construction zone for a given piece of property reach the same conclusion independent of one another. Realization of this goal will substantially reduce the amount of time the City of Atlanta planning and zoning officials spend interpreting various requirements to specific projects. Realization of this goal will also allow (potential) property owners to have a clear understanding of the development potential of a given piece of property.

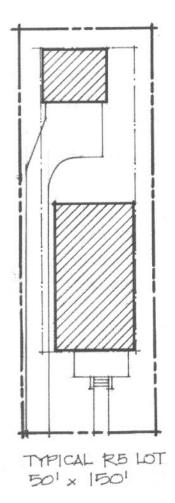
The Atlanta Infill Development Panel proposes the following two methods to accomplish the requested limits for new construction in established neighborhoods and communities. First, provide consistent limitations across all residential zoning ordinances through adjustments to existing metrics. Second, allow an additional voluntary overlay for compatibility which neighborhoods can choose to shape and adopt. It is the panel's recommendation that interim controls be put in place during the process of adopting these new zoning regulations.

Quantifiable Metrics:

- All Residential Zoning Categories to have both Lot Coverage and Floor Area Ratio standards.
- 2. Adopt the following changes for residential classifications without FAR.
 - R-4A: Adopt FAR of .5 consistent with R-4.
 - 2.2. **R-4B:** Adopt higher FAR of .75 to allow larger homes on small lots.
 - R-5: Adopt FAR of .5 for all conditions under this zoning.
 See Figure 2.

- 3. Adopt the following changes for residential classifications without lot coverage requirements.
 - 3.1. R-4A: 50% Maximum Lot Coverage
 - 3.2. R-4B: 60% Maximum Lot Coverage
 - 3.3. R-5: 50% Maximum Lot Coverage

Lot Coverage Example Figure 1



MAX. LOT COVERAGE: 50% LOT AREA MAX. ALLOWABLE AREA: 3750 SF

HOUSE (30'x 55'): 1650 SF GARAGE (20'x 25'): 500 SF FORCH (10'x 20'): 200 SF FAVEMENT: 1320 SF TOTAL COVERAGE: 3670 SF

 Clarify that Floor Area Ratio (FAR) is based upon calculations using the Net Lot Area: the area within the property boundaries for all residential zoning classifications.

- 5. The **FAR** should be defined as applying to all levels above grade where the majority (51% or greater) of space can be occupied and includes portions of attic spaces that meet the minimum headroom requirements.
- 6. Other than the area dedicated to parking vehicles, any area within an accessory building meeting minimum headroom and minimum room dimension requirements will be included in the **FAR**.
- 7. Define **basement** as any habitable area, one or more levels, whereby the majority (51% or greater) of wall area between the finished floor to the underside of floor structure above is below the exterior grade.
- 8. The **exterior grade line** is the average grade height between the perimeter face of house and grade elevation five (5) feet away from the building face.
- 9. For new construction, the **main floor elevation** (above sea level) may be established as the greatest of the following options:
 - 9.1. 4'-0" above the existing, undisturbed grade.
 - 9.2. 3'-0" above the street, measured at the centerline of the property at the gutter level of the street.
 - 3'-0" above the main floor level threshold of the existing structure.
 See Figure 3.
- 10. Define the measurement of Maximum Building Height with acknowledgement of grade changes.
 - 10.1. The maximum building height is 35'-0".
 - 10.2. The building height is the mean building height measured on the four elevations (front, sides and rear) of the building. [Add the building height of the front, both side and rear elevations. Divide by four to determine the mean building height.]
 - 10.3. The building height is measured from the average grade level on each elevation (front, sides and rear) to the mean of the main body of the roof. The main body of the roof does not include roof accessories such as chimneys, flagpoles, cupolas, turrets, towers, etc. so long as the gross floor area of the accessory projection is 15% or less than the gross floor area of the floor immediately below the roof.
- 11. **Retaining walls** are limited to 4'-0" feet in height based on the cut or fill of the existing grade conditions.*
- 12. **Retaining walls** within the prescribed setbacks may not exceed 30" in height. Retaining walls within the prescribed setbacks required for the retaining of cut and/or fill for a driveway may not exceed 4'-0".*

^{*} Retaining wall requirements should not be interpreted as a limit of 4'-0" of retainage on a given site. A site may require more retainage though the maximum limit for any *individual* wall is 4'-0".

Overlay control:

Neighborhoods as defined by the Neighborhood Planning Unit system may petition for a single overlay based on compatibility. The area of comparison or influence shall be prescribed as within five time the minimum lot frontage of the residential zoning district. Example: An R-5 lot with a minimum street frontage requirement of 50 feet would have an area of comparison within 250 feet of the property. Structures within that area must be of like use in order to be incorporated in the comparison. The origin of the structures would be limited to those built before the current zoning ordinance was put in place: residences built prior to 1982.

This voluntary overlay would allow the neighborhood to set certain quantifiable metrics based on compatibility. The neighborhood may choose to adopt more stringent metrics that protect the quality and character of the neighborhood by relating new construction (including additions) to the existing conditions.

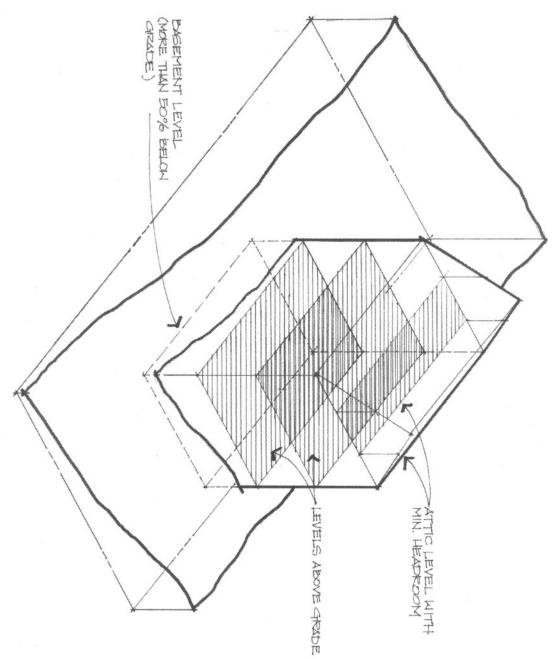
This method is not intended to stop the evolution of the neighborhood. It allows development relative to the existing conditions based on the overlay approved by the neighborhood. The overlay would require that additions and new construction be no larger than the largest and no smaller than the smallest buildings within a designated area of comparison.

Quantifiable Metrics that may be amended:

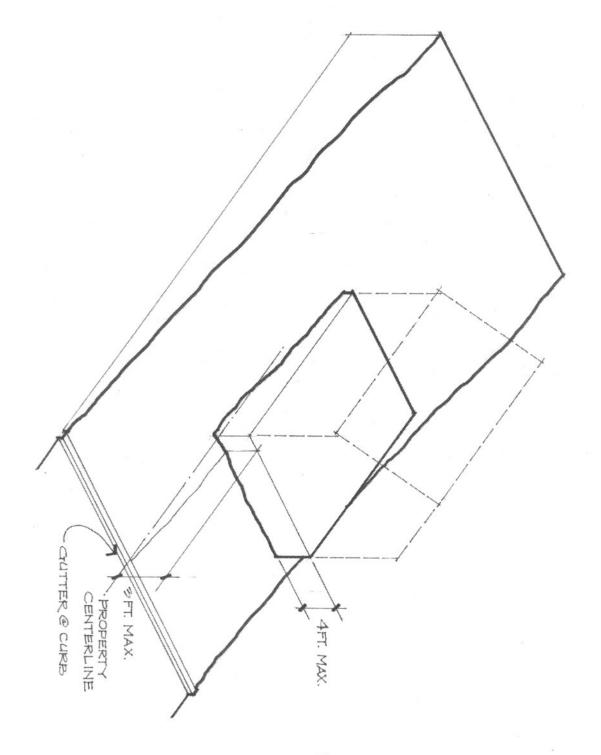
- 1. Lot size
- Setbacks
- 3. Maximum building height
- 4. Floor height above grade
- 5. Determine maximum bearing height of wall
- 6. Maximum building width

Zoning Classification	R-1	R-2	R-2A	R-3	R-3A	R-4	R-4A	R-4B	R-5	R-5
										Zero-lo line
	_			18,000	13,500					
Min. Lot Size	2 acres	1 acre 150	30,000 SF	SF	SF	9000 SF	7500 SF	2800 SF	7500 SF	2500 S
Min. Lot Frontage	200 FT	FT	100 FT	100 FT	85 FT	70 FT	50 FT	40 FT	50 FT	10 FT
Front Setback	60	60	60	50	50	35	30	20	30	30
Side Setback	25	15	15	10	10	7	7	5	7	0
Rear Setback	35	30	30	20	15	15	15	5	7	7
F.A.R.	0.25	0.3	0.35	0.4	0.45	0.5	0.5	0.75	0.5	0.5
Max. Lot Coverage	25%	35%	35%	40%	45%	50%	50%	60%	50%	50%
Max. Height	35	35	35	35	35	35	35	35	35	35
Test Cases										
Large Lot Size	100000	50000	35000	20000	15000	11250	9000	3500	9000	3000
FAR	25000	15000	12250	8000	6750	5625	4500	2625	4500	1500
Max Lot coverage	25000	17500	12250	8000	6750	5625	4500	2100	4500	1500
35% pavement	8750	6125	4287.5	2800	2362.5	1968.75	1575	735	1575	525
65 % building	16250	11375	7962.5	5200	4387.5	3656.25	2925	1365	2925	975
Typical Lot Size	87120	43560	30000	18000	13500	9000	7500	2800	7500	2500
FAR	21780	13068	10500	7200	6075	4500	3750	2100	3750	1250
Max Lot coverage	21780	15246	10500	7200	6075	4500	3750	1680	3750	1250
35% pavement	7623	5336.1	3675	2520	2126.25	1575	1312.5	588	1312.5	437.5
65 % building	14157	9909.9	6825	4680	3948.75	2925	2437.5	1092	2437.5	812.5
Small Lot Size	65340	35000	25000	15000	12000	7500	5000	2000	5000	2000
FAR	16335	10500	8750	6000	5400	3750	2500	1500	2500	1000
Max Lot coverage	16335	12250	8750	6000	5400	3750	2500	1200	2500	1000
35% pavement	5717.25	4287.5	3062.5	2100	1890	1312.5	875	420	875	350
65 % building	10617.75	7962.5	5687.5	3900	3510	2437.5	1625	780	1625	650

Floor Area Ratio Diagram Figure 2



Finished Floor Height Diagram Figure 3



Planning Recommendations

- City of Atlanta Infill Goals: The City needs a statement of goals on how infill development should be guided. A concise statement of goals is the first step in clear and consistent policy and enforcement. The City's statement could include the following:
 - 1.1. "Compatible scale" includes the comparable massing, height, and width as a building appears from the street, as well as the effects of different massing, height, and width on neighbors to the side and rear. The impacts of scale that should be considered include loss of daylight, loss of side views, loss of backyard privacy and loss of street/neighborhood character.
 - 1.2. The development review process should be consistent, concise, and fair and should protect the rights of all interested parties: the land owner, the developer, the neighbors, and the City. The City should strive to adopt rules that are easy to understand and thus easy to enforce.
 - 1.3. New construction should be integrated into the existing neighborhood by observing context and where possible improve the neighborhood.
 - 1.4. Neighborhoods should have the ability to customize their regulations to address their most urgent needs. This ability needs to be sufficiently uniform to be efficiently enforced and understood by all parties.
 - 1.5. Neighborhoods have a right to preserve their existing character while permitting compatible new construction and renovations. Except in designated historic neighborhoods, the definition of existing neighborhood character should focus on the issues of scale, building placement, and street orientation, and should not restrict architectural style.
 - 1.6. Increasing the allowable building mass by manipulating the grade change should be kept to an absolute minimum.
- 2. Neighborhood Self-Governance: Give neighborhoods a set of defined overlay tools to customize development review to their needs. In order to keep administration simple, each overlay option must either be accepted "as is" without modification, or refused. Where they are adopted, the overlays should be enforced identically throughout the City. Overlay options may include:
 - 2.1. Scale Overlay An overlay that can be adopted by a neighborhood to ensure compatibility.
 - 2.2. Urban Design Overlay An overlay that can be adopted by a neighborhood to address basic urban design issues of garage placement, driveway placement and design, and front façade door and window treatment.

- 2.3. Remind neighborhoods that they can apply for *Historic District*, *Landmark District*, *Conservation District or SPI District* status if the above overlay tools do not serve their purposes.
- Public Involvement: Increase NPU and public access to relevant development review information. Improve the flow of information between the City and NPUs. [Public comments should be handled through the NPU leadership rather than citizens contacting permit applicants directly.]
 - 3.1. Require that applications for demolition be posted in a conspicuous location in the right-of-way on a property in the same manner as rezoning notices two weeks prior to demolition.
 - 3.2. Require NPU notification of subdivision applications
 - 3.3. Require NPU notification of new construction even if no rezoning or variances are necessary for construction.
- Regulation Review: Beyond standard residential zoning, consider reform of the following regulations to promote neighborhood compatibility and quality urban design.
 - 4.1. Illustrate regulations with examples to make them easier for both the general public and developers to understand. Make illustrations of both desired and unacceptable types of development.
 - 4.2. Rescind the Lots of Record Subdivision Ordinance
 - 4.3. Consider new zoning categories for narrow, deep lots and other common lot types that do not fit in the current zoning categories. Consider applying "compatibility rules" to any and all nonconforming lots as a means to proper development within existing neighborhoods.
 - 4.4. Reform PDH zoning to make it clear what purposes it should be used for and where it should apply. Possibly replace PDH zoning with a new conservation subdivision ordinance.
 - 4.5. Clarify the rules for justifying a variance and enforce them as written.
- 5. **Enforcement issues:** Increase the consistency and transparency of zoning and code enforcement.
 - 5.1. Provide citizens and NPUs with a single point of contact for reporting on and inquiring about enforcement issues.
 - 5.2. Apply standards consistently and thoroughly.
 - 5.3. Enforce notification requirements on posting rezonings (zoning actions) and tree removals.
 - 5.4. Require complete submission of documents before approval of a permit.
 - 5.5. Require the demolition of all illegal work. Fines are not enough of a deterrent to prevent illegal work.

- 5.6. Use a team approach to development review so that all departments can share information on possible issues with an application. Ideally, all staff involved in site plan review should attend a joint site review meeting, including transportation, watershed, city arborist, zoning, urban design planner and an NPU planner. Suggest that a preliminary review of project be allowed to take place prior to submission for permit.
- Affordability: Address displacement through rising property tax assessments.
 Work with Fulton County to explore placing a ceiling on the increased
 assessments for long-time residents of neighborhoods.

Moving Forward

The Atlanta Infill Development Panel has consumed a substantial amount of information in its development of the recommendations to the City. The most important information provided to the panel came from the public reporting forum.

The panel views the reports from the public forum as the benchmark set by the citizens of the city of Atlanta through their NPU representatives. The panel is prepared to continue its work for the citizens of Atlanta through its support of the Mayor's task force, the work of the City Council and the work of Commissioner Steve Cover's Planning and Community Development Department.

The member organizations that make up the panel offer experience, expertise and physical resources such as meeting space and staff time. Many of the member organizations also provide additional resources from their state and national components.

The panel encourages the City to make the process of addressing the issue of infill development as open and transparent as possible. The panel also encourages the City to include, in the Mayor's task force, professional organizations like those that make-up the Atlanta Infill Development Panel. The professionals from these organizations bring real-life, day-to-day experience to the process and they are backed by the resources of their respective organizations. If invited to participate, they will be an invaluable resource to the City of Atlanta.

Introduction

Infill Housing and Lot Coverage

Arlington is one of the most desirable places to live in the region. And as a largely "built out" community, when new single-family homes are constructed here, often they are built on lots previously occupied by existing houses. In the case of larger lots, oftentimes one older home might be torn down and replaced by two. Other new residences are being built on vacant lots.

The issues

Many neighbors of these new houses, who perceive them as too big and not in keeping with the character of the existing neighborhoods, have asked the County Board to address this issue. In recent years, the Board has received wide range of complaints about infill development including loss of open space, bulky and incongruous buildings that are incompatible with neighborhood character, loss of separation between houses, visual intrusions, loss of trees, and more area devoted to parking and driveways.



The County Board already has taken steps designed to limit the undesirable impacts of infill development on established neighborhoods (See sidebar). However, in response to continuing community concerns, the Board has directed the Zoning Ordinance Review Committee (ZORC) and Planning Department staff to recommend new guidelines for one remaining issue 4 "lot coverage." On February 12, 2005, the County Board authorized the advertisement of public hearings on the proposed amendments to Sections 1, and 32, of the Arlington County Zoning Ordinance at the April 25, 2005 Planning Commission and May 7, 2005 County Board meetings. The advertised language was recommended by the Planning Commission. The Neighborhood Conservation Advisory Committee and the Zoning Ordinance Review Committee also recommended the language in Attachment E with minor differences from the language recommended by the Planning Commission. Coverage requirements in the advertised language, along with staff recommendation, are described in this report.

What is coverage?

Coverage determines how much of a lot can be covered by structures and driveways. Regulating coverage has a direct impact on the size of the "footprint" of houses, garages and driveways. The purpose of the ZORC/Staff study was to determine reasonable coverage limits that would protect neighborhoods from very large houses in the future while still allowing reasonable sized houses for today's market.

One issue with the current maximum lot coverage requirement is that it is the same - 56 percent maximum coverage - for all five of the County's single-family residential zoning districts (R-5, R-6, R-8, R-10 and R-20) regardless of lot size.

A recent staff analysis of GIS data for all lots in the County with singe-family. detached houses found that relatively few houses are currently out of compliance with the existing regulations: only 96 lots (approx. 0.04 percent) have a coverage that is greater than 56 percent. And the overwhelming majority of lots, 96.5 percent, have coverage of 40 percent or less. (See chart)

Zoning District	Lots More Than 56%	Lots 40% or Less	
R-5	40 (1.8%)	1,902 of a total of 2,253 (84.4%)	
R-6	49 (0.3%)	16,488 of a total of 17,428 (94.6%)	
R-8	3 (0.2%)	1,727 of a total of 1,763 (97.9%)	
R-10	4 (0.1%)	4,684 of a total of 4,790 (97.8%)	
R-20	0 (0 %)	281 of a total of 281 (100%)	

Recommendations

After studying the issues, ZORC is recommending a sliding scale requirement that would reduce the overall coverage but allow larger coverage on smaller lots. It would also distinguish between properties with detached rear garages and front porches.

ZORC is also recommending:

- Reducing coverage to ranges from 45 percent for the R-5 District to 20 percent for the R-20 District
- Instituting footprint size caps so that overly large houses could not be built on lots that were significantly larger than the typical lot in any zoning district.

Based on the data, if this recommendation were adopted, 95 percent of the lots in R-5, 95 percent of the lots in R-6, 92 percent of the lots in R-8, 90 percent of the lots in R-10 and 78 percent of the lots in R-20 would not be impacted by the proposed change.

Porches and detached garages encouraged

Front porches promote an inviting streetscape and are commonly found on older homes in the County, and detached rear garages significantly reduce the bulk of main buildings. However, because such garages require longer driveways (which are included in coverage calculations), reducing the coverage percentage without some relief for detached rear garages would make it difficult to build them.

To address this, ZORC recommended 5 percent additional coverage for detached rear garages located in rear yards and 3 percent additional coverage for front porches. This addresses a concern that reducing coverage might discourage these desirable design elements, which increase a building's footprint and thus coverage.

These distinctions are designed to encourage and reward building forms compatible with Arlington neighborhoods. Staff is analyzing these recommendations and will request that the County Board advertise final zoning ordinance amendments later this fall.

Impact on homeowners

How would these changes affect homeowners? As long as your lot does not exceed the new maximum requirement, there would be no impact. You might be limited in how much additional footprint you could add to your property.

If your lot is currently at the new maximum, then you would be limited in how much additional footprint could be added unless it was a front porch or a detached garage in the rear yard. Finally, if your lot is currently over the new maximum then you would not be able to add additional footprint and you would be what is called nonconforming. This means that your lot is perfectly legal but that your lot does not comply with the zoning ordinance. There is currently a limit to your ability to expand a nonconforming structure, and a limit on your ability to rebuild them if it is damaged or destroyed. The County Board has also directed staff to prepare an amendment that would protect your ability to rebuild.

In an effort to inform Arlington citizens of the pending changes, planning staff has developed this article. In addition, staff will make presentations to the Neighborhood Conservation Advisory Committee and any civic associations that are interested, and establish a "Hot-Line" for homeowners to call with questions and for assistance to determine whether specific properties would be in compliance with the proposal.

The Advertised Coverage Limits

Categories	R-5	R-6	R-8	R-10	R-20
Maximum Lot Coverage	45%	40%	35%	32%	25%
Maximum Lot Coverage with front porch	48%	43%	38%	35%	28%
Maximum Lot Coverage with rear detached garage	50%	45%	40%	37%	30%
Maximum Lot Coverage with rear garage and front porch	53%	48%	43%	40%	33%
Maximum Main Building Footprint Coverage	34%	30%	25%	25%	16%
Maximum Main Building Footprint Coverage with a front porch	37%	33%	28%	28%	19%
Main Buildings Footprint Cap	2040 sf	2160 sf	2400 sf	3000 sf	3880 sf
Main Buildings Footprint Cap with a front porch	2200 sf	2376 sf	2688 sf	3360 sf	4610 sf

STAFF RECOMMENDATION

Not Advertised. However this language is within the scope of notice of the language advertised by the County Board on February 12, 2005.

Definitions Section 1.

Lot Coverage. The percentage determined by dividing (a) the area of a lot covered by the total (in square feet) of: (1) the footprint of the main building; and (2) the total footprints of accessory buildings [counting only buildings with footprints larger than one hundred fifty (150) square feet, or with a height of two stories or morel; and (3) parking pads and driveways; by (b) the gross area of that lot.

Main Building Footprint Coverage: The percentage determined by dividing that area covered by a main building footprint by the gross area of the lot on which the main building is located. The main building footprint shall include all parts of a main building that rest, directly or indirectly, on the ground, including, by way of illustration and not by limitation, bay-windows with floor space, chimneys, porches, decks supported by posts and with floor heights that are four (4) feet or higher above grade, cantilevered decks with horizontal projections that are four (4) feet or more, and covered breezeways connected to a main building.

* * *

Section 32. Bulk, Coverage and Placement Requirements

C. Coverage

> For the purpose of securing open space for the exclusive use of pedestrians, except by site plan approval, no building or structure in "R," "RA," and "C-1-O" Districts, including accessory buildings and all areas for parking, driveways, maneuver and loading space, shall cover more than fifty-six (56) percent of the area of the lot, except as may be specified in the various district classifications.*

The maximum lot coverage percentage shall be as follows:

On lots in "R" Districts ("R" District to include "R-20," "R-10," "R-8," "R-6," and "R-5, but not "R2-7") where new construction is proposed or built, the following shall apply. For purposes of this section, "new construction" means when one of the following criteria is met: constructing a main building on a lot where there has been no main building; or where

construction retains (as outer walls) less than fifty percent (50%) of the linear feet of a structure's outer walls (measured at the top of the wall where it meets the roof) as those outer walls existed on May 7, 2005; or where construction results in an increase of more than 100 percent in the footprint of the main building.

- Maximum lot coverage shall be as established in the table below: a.
- When a detached garage is provided in the rear yard, the maximum b. lot coverage may be increased as shown in the table below (in compliance with the requirements of 32.D.2.e.);
- Maximum main building footprint coverage shall be as shown in the C. table below.
- When a porch is attached to the front elevation of a one-family dwelling and has an area of at least sixty (60) square feet on the front of the building (exclusive of any wrap-around or side portion), the maximum coverage may be increased as shown in the table below.

Categories	R-5	R-6	R-8	R-10	R-20	
Maximum Lot Coverage	45%	40%	35%	32%	25%	
Maximum Lot Coverage with front porch	48%	43%	38%	35%	28%	
Maximum Lot Coverage with rear detached garage	50%	45%	40%	37%	30%	
Maximum Lot Coverage with rear garage and front porch	53%	48%	43%	40%	33%	
Maximum Main Building Footprint Coverage	34%	30%	25%	25%	16%	
Maximum Main Building Footprint Coverage with a front porch	37%	33%	28%	28%	19%	
Main Buildings Footprint Cap	2040 sf	2160 sf	2400 sf	3000 sf	3880 sf	
Main Buildings Footprint Cap with a front porch	2200 sf	2376 sf	2688 sf	3360 sf	4610 sf	

Existing main and accessory buildings or structures that are not in 2. conformance with the coverage requirements adopted on May 7, 2005, shall be permitted to be rebuilt within the building footprint as it existed on May 7, 2005, if the structures are damaged or partially destroyed by fire, wind, earthquake or other force majeure, and if construction commences within two (2) years from the date of the

calamity.

3. For all lots in "R" Districts that are not new construction as defined above or not used for one-family dwellings, and lots in "R2-7," "RA," "C-1-O" or any other zoning districts, lot coverage shall not exceed fifty-six (56) percent, except as may be specified in the various district classifications, or unless otherwise permitted to be modified by site plan or use permit.

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These recommendations are respectfully submitted by the Atlanta Infill Development Panel.

For additional information or to submit comments and suggestions, please visit http://www.AlAatlanta.org.

^{*} A number of other organizations were asked to participate. Some agreed and did not attend. Some declined. The panel members listed above participated at the request of their respective organizations.

Mansionization



White Paper Discussion City of Rockville, Maryland

July 25, 2005

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City of Rockville **Zoning Ordinance Revision Issue Paper**

Mansionization

I. INTRODUCTION

"Mansionization" is the process where existing single-family, detached homes are demolished or enlarged to create houses that are several times larger than the originals. Mansionization also

occurs on infill lots where new houses do not conform to the character of the neighborhood. It is caused by a desire for modern amenities, such as large kitchens, cathedral ceilings, walk-in closets, and multiple bathrooms, that may not exist in older homes. This trend is a growing concern across the U.S. and has already had a great impact in built-out neighborhoods in Bethesda and Chevy Chase where vacant property is unavailable. Rockville is reaching built-out status and requests demolitions to rebuild have become a regular occurrence.



Incompatible Reconstruction

There are a number of competing arguments on either side of this issue. Property owners state that they have the right to use or develop property as long as they are in compliance with the legal development standards. Adjacent property owners however, may lament the loss of neighborhood character and the reduction in sunlight and air movement. In addition, there can be a reduction of privacy when a 40-foot structure towers over a one-story house and yard.

On the proponent side, building new homes where there is existing infrastructure gives residents an alternative to building further out and away from businesses. This helps reduce other urban problems, specifically sprawl and increased traffic.

Mansionization is not an issue with new development in Rockville. Most new developments have strict covenants and require architectural review approval for changes to existing houses. Large houses at minimum setbacks in places like the King Farm or Fallsgrove remain in the same context as they existed when buyers purchased their home. If homeowners do not care for the home's development style, they will buy elsewhere.



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Mansionization, however, is a growing occurrence in some neighborhoods and will likely intensify as the current trend for larger housing progresses. Demolition and redevelopment with much larger houses is already a common occurrence in West End Park from Forest Avenue to I-270 on the north side of West Montgomery Avenue¹.

Mansionization is primarily an issue where lots are not large enough to accommodate these large houses in an esthetically acceptable manner. It is also a potential issue in areas where the land values justify the expense of renovation or even demolition and reconstruction. This means that neighborhoods in the R-60, R-75 and R-90 zones are the ones most likely to be affected by this redevelopment process. There are no hard and fast criteria that can readily predict where mansionization may occur. However, some of the relevant factors include a high ratio of land value to improvement value; perceived desirability of the neighborhood; convenience to mass transit; convenience of the neighborhood to jobs or the central urban core. Within the City, neighborhoods other than the West End that may be susceptible to mansionization include Twinbrook, Twinbrook Forest, Croyden Park, and Lincoln Park.

Demolitions for redevelopment of new housing have been most active in the West End Park area of Rockville. This area has attracted small infill developers as the cost of a 9,000 square foot R-60 zoned lot and a house in this neighborhood ranges from \$300,000 to \$450,000, although it continues to climb with the housing market. In 2003, a house built in 1935 on Mannakee was sold for \$350,000 with redevelopment the ultimate intention. This was the record price for a teardown in 2003. The ceiling cost for a teardown structure that allows a reasonable profit has increased to \$400,000 in 2005. The average price is closer to \$360,000. This is fueled by the number of new or recent resale houses in West End Park that are marketed in excess of one million dollars.

Another category of redevelopment is the home buyer who purchases a small house in West End Park or East Rockville to demolish the existing house and build a new house for their own use.

II. GENERAL ISSUES

The mansionization issue relates to in-fill development. As stated above, the controversy is not about large houses in general. The controversy is about large houses intruding upon neighborhoods of smaller houses. Residents of any neighborhood move in expecting a degree of stability. Many buy their house not only because of the house itself, but also because of their expectation of living in a stable community. The sudden intrusion of a house out of character with the neighborhood is destabilizing in their minds, particularly if it is next-door.

The following is background information to balance the various elements and arguments that are typically used when confronting larger infill structures in lower scale, existing neighborhoods.

¹ Statistics are difficult to assemble. The City's permitting software did not capture demolition as a separate category until 2001. Prior to this, demolition was permitted as part of a building permit. Of 55 applications for demolitions from January of 2001 to January of 2005, 55 applications for demolition had been received. Prior to 2001, demolition was issued as part of a building permit.



A. Potential Concerns Related to Mansionization

1. Property values: Neighbors are often concerned that new homes will hinder their own housing value and change the character of the neighborhood. Higher property values in a neighborhood may change the demographics of an area and may make a once affordable, middle class community into a high priced area that few can afford. This alteration makes current residents feel like they do not belong in what was once their neighborhood. In addition, other neighbors claim that their property value will go down because their house is now valued less than the new/expanded houses.

Some neighbors object to new or expanded houses because they believe that their own taxes will rise as a result of the increased value of the nearby properties. Their concern may be warranted. Some jurisdictions welcome such redevelopment. The increase in property values adds to the tax base, helping to fund public infrastructure and schools.

- 2. **Infrastructure:** Infill may also burden the existing community's infrastructure. Utilities, such as water, sewer, stormwater controls, and electricity may have been designed to handle smaller houses and may not be able to accommodate large infill houses that would exhaust these resources.
- 3. **Environment:** The size of houses potentially can degrade the environment by increasing storm water runoff, removing existing trees, increasing lot coverage, and requiring more paving (of driveways, patios, etc.).
- 4. Compatibility: Large houses can be out of proportion and balance with the existing houses in the neighborhood. These new houses may be termed an "eyesore" because they do not match the architectural style of the neighborhood. The new houses often "loom" over neighboring smaller houses, especially at the minimum setback, restricting air and light and reducing privacy. The prevailing conditions were part of the original lot value and infringing on these rights threatens the overall property value and the property owner's rights. In addition to the inconvenience that the large house places on its immediate neighbors, it also weakens the character and texture of the neighborhood as a whole.
- 5. **Cost**: In today's market, the cost of additions or remodeling can be twice the cost of new construction. As a result, many homeowners choose to demolish instead. Demolition is less likely to retain the original character of a house than reconstruction.

B. Potential Benefits of Mansionization

1. **Property Values:** Neighborhoods that don't improve are liable to stagnate and eventually degenerate. Viable communities are necessary to the cultural and economic well being of a city. It is to the City's ultimate benefit, as well as the neighborhood, to encourage improvement or redevelopment and maintenance of homes to maintain property values.



- 2. Infrastructure: Redevelopment in established neighborhoods may have some effect on sprawl. Instead of seeking out new developments located farther from the city, property owners will replace older homes with their own desired housing styles. Schools and other infrastructure already exists that can accommodate or be made to accommodate the home.
- 3. More compact development means more compact infrastructure. Infill helps reduce cost of new infrastructure because extensions to services do not need to be laid to support rural development. For example, long pipes and drains are not needed to service properties on larger and more spread out yards.
- 4. Although the redevelopment near the metro station and along Rockville Pike is providing new sources of housing, some property owners prefer single-family homes with yards. Likewise, many want to move into already settled communities that have close proximity to services such as transportation and commercial centers.
- 5. Environmental: Another argument to support mansionization is that it does not affect the potential amount of run-off on a property. Under current standards, a homeowner could cut down all his trees and pave virtually the entire yard. Current coverage limitations in the zoning ordinance are based on the *building* coverage, not total imperviousness. Driveways, patios, decks, etc. do not count toward the total percentage of lot coverage allowed, nor does Rockville limit the amount of a lot that can be covered with a patio or other material. Where there is open space, the Rockville City Code (§ 5-287, Property Maintenance Code) requires ground cover such as grass or mulch.
- 6. **Compatibility:** New development can include aesthetic touches, which may be lacking in existing structures. Zoning currently does not regulate aesthetics or require that the aesthetics of new development correspond to the character of the neighborhood. Instead, character elements and design are currently considered in changes to a site in designated historic district, as it would be in a designated neighborhood conservation overlay district that has adopted guidelines.
- 7. Normal Progression: Houses are lost due to natural causes as well. Hurricanes, fires, falling trees, and termite infestation make unanticipated changes to the structure of a house. Homeowners may wish to protect against natural deterioration by reconstruction or demolition, while remaining in their neighborhood. Permitting mansionization, therefore, would provide homeowners with options to maintain their property within their current neighborhood. Furthermore, it allows home owners to maximize the investment that they have made on their home.

III. ALTERNATIVES

Methods have been used nationwide to control new development in existing neighborhoods and accomplish the goal of compatibility without stifling the opportunity for improvement and



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expansion. No single answer has yet been found to adequately address all the concerns of mansionization. Monster homes are criticized not only for their sheer size, but also for the way in which size is further emphasized by the design of the house.

Other jurisdictions' solutions can be classified in two groups: 1) mass regulations and 2) architectural requirements. The following are some solutions that have been developed by other communities to address mansionization. They are listed in order from least aggressive to most aggressive. Some of these options appear to be more applicable to Rockville than others.

A. Mass Regulations

Mass regulations control the scale of the home to its context. When a monster home is constructed in a neighborhood of small lots, the impact of mass is maximized. These regulations help to limit the impact of large structures.

1. **Building Envelope Regulations**. A traditional means of controlling home size is by specifying lot coverage limits (setbacks and percentage of usable space). Decreasing the allowed lot coverage and increasing building setbacks achieve a smaller envelope.

The basic matter that needs to be addressed is the relationship between the large house and its immediate neighbors, particularly along the side lot line. A sliding scale is needed to adequately accommodate the new house on different sized lots. A 5,000 square foot house on a half-acre lot with at least a 13-foot setback is not as intrusive as the same house on a 6,000 square foot lot with an 8-foot setback. It should also be understood that while a large lot can usually support a large house without infringing on its neighbors, it should not be developed with the intent to redevelop the lot for two houses in that same space where subdivision is a possibility.

Smaller bulk is achieved, overall, by decreasing the height or number of stories allowable. Some cities have reduced standard height restrictions to produce a shallower roof pitch, but still making a second-story addition possible. Regulations on height can be placed on a number of things. Besides total building height, height restrictions can be placed on attic floor levels, basements, and detached garages.

The percent of all building footprints or building coverage, allowed on a lot in Rockville ranges from 25% to 35% of the lot square footage. For Rockville's smallest permitted new lots, 6,000 square feet, this allows 2,100 square feet for each story. Rockville allows a height of 35 feet, measured to the midpoint of a gable roof. The midpoint of a very steep roof can be 8-10 feet, which allows another 8-10 feet above it or close to 45 total feet in height. By these standards, a new home on a 6,000 square foot lot with an attic and basement can legally be built in excess of 8,000 square feet and be very tall with an FAR of 1.3. Currently, new single-family home subdivisions have been built via the Planned Residential Unit method, and other than the two country clubs there are no large undeveloped parcels remaining. An overall change to the zoning standards in height,



setback and lot coverage would primarily affect new houses and large additions in older established subdivisions.

2. Floor Area Ratio (FAR). FAR regulations are one of the most common techniques for controlling oversized homes. Floor area ratio is a ratio of the gross square footage of the building or buildings on the lot divided by the square footage of the lot. FAR's allow planning departments to control the overall square footage of a home, including second-plus stories, as well as accessory structures such as garages and covered porches. Many communities implement a sliding scale for FAR's to meet the individual needs of the individual zoning districts, instead of one set FAR for the entire city.

Rockville has used FAR values for commercial buildings in urban commercial areas where front, side and rear setbacks are not the primary consideration. A simple lot percentage for the footprint of all buildings combined with the allowed height and setbacks has been used in Rockville to define the building envelope, not FAR.

FAR limits alone will not solve the problem. While FAR controls the bulk, it does not limit the amount a large house may impede on a neighbor. Regulations controlling height and setbacks must also be included in order to be effective.

Adopting an FAR standard is not the best method for Rockville. Areas of Rockville most vulnerable to mansionization are generally urban R-60 to R-90 lots ranging from 5,000 to 10,000 square feet with lot widths of 50 feet to 70 feet. With narrow lot widths, a tall building could easily be built within FAR standards and still cause problems to adjacent neighbors.

3. Cubic Content Ration (CCR). Cubic content ratios are similar to the floor area ratio. A CCR value, as used in Aspen, Colorado, considers the height of the building as well as the gross square footage of the building and the lots.

Like FAR, CCR is not a practical option for Rockville. Because there is no one-size-fitsall standard that can be applied to effectively address the concerns of mansionization, a better option would be to apply design guidelines on a neighborhood-by-neighborhood basis.

4. Second Story Regulations. Since mansionization often includes the addition of a second story, many mass regulations have begun to regulate the size and setbacks of second stories. This type of regulation leads to a stepped appearance, which limits the overall bulkiness of a larger house.

Second story ratios are placed in relation to the size of the first floor. Like FAR regulations, these ratios are often provided on a sliding scale for the various lot sizes (as seen in two examples below). The following chart is an example of some second story ratios.



Percentage Allowable	Ratio Comparison		
35% or 600 sq. ft. (whichever is greater)	Of the first floor		
50%	Of the first floor for lots under 5,000 sq. ft.		
75%	Of the first floor for lots over 5,000 sq. ft.		
60%	Of the first floor		

In addition to, or as an alterative to ratios, some communities have imposed a secondstory setback requirement to make the house appear less bulky. These could be placed on front or side setbacks. For example, where there is a five-foot side setback for the first



Second Story Setback

story, a 10-foot side setback would be placed on the second story. Both setbacks are measured from the property line.

The drawback of a second-story setback or ratio is that a one-story home that is reconstructed may not be built to bear the load of a second story that is not flush with existing walls. A second-story addition can, therefore, be more architecturally challenging and more expensive than a simple second story on a new house. Nevertheless, second story ratios and

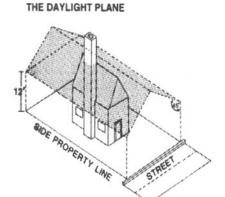
setbacks have been shown to effectively minimize bulk by breaking up the façade of a home.

5. Daylight Plane Regulation. A complicated regulation is a daylight plane requirement. Drawing a vertical line from the side property line to a specified height on a house derives a daylight plane. An angle is then drawn off this line, which continues until it meets the angle drawn from the opposite side of the house (see illustration below). The more restrictive the height/angle used, the more effective the daylight plane is at reducing mass. The daylight plane creates an imaginary envelope around the sides and top of a house that limits its height and width. Any part of the house, which protrudes out of this envelope, is considered to be an obstruction that can reduce the solar access of the adjacent house.

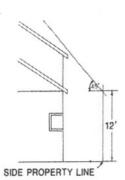
With regulating daylight planes, it is important to include both exemptions and demonstrative illustrations. Exemptions may include dormer windows, gables, fireplaces, and antennas. Illustrations may include something like the following:



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Daylight planes confusing alternative, that staff does not recommend implementing. In practice, the daylight plane serves much the same purpose as a second story ratio or setback because it forces the second-story to be stair-stepped in. Daylight plane regulations, however, are more complicated to implement. The plane must be calculated and permitted exemptions reviewed on a case-by-case basis. The plane is particularly challenging to calculate on slopes, where it must be done in increments. The daylight plan must be closely keyed to the side setbacks of a home, as the point of which the angle intersects the home is greatly influenced by the distance of the home from the side property line. The further the home is from the property line, the taller the addition may be. Thus, the daylight plane is most restrictive in homes with small side setbacks.

B. Architectural Requirements

While architectural requirements protect neighborhood character, they can also help prevent look-alike areas. The key to such requirements is to strike the right chord. The language cannot be too restrictive, allowing for the imagination of architects, but not unconstitutionally vague either.

- Rooflines. Major rooflines on a property can accentuate the mass of a building or lead to a monotonous street if constructed the same way on a number of houses along a block. As a result, architectural requirements can impose a change in roof plane, a mix of roof styles or materials, and a number of decorative options.
- 2. **Entries**. Some cities require clearly defined, prominent primary entrances that feature some form of design element. Design elements may include decorative doors; porticos, arches, or pillars; or peaked roof forms.
- 3. **Façade.** Mass can be accentuated when a home lacks definition in its façade, making it look square and bulky. Unbroken multi-story elements, such as towers, entryways, and



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walls can also accentuate mass. Some communities require that façades be broken up, that a mix of building materials be used, or that decorative windows or doors be installed to reduce the impression of mass.

4. **Windows.** Some cities ban windows on the side walls of home to protect the privacy of neighbors. Banning windows is unnecessarily restrictive, however, as there are many window styles and glass types currently available. Opaque glass, including frosted and tinted glass, patterned glass, and glass blocks can afford both light and privacy.

IV. IMPLEMENTATION TECHNIQUES

In addition to applying mass regulations and architectural guidelines, some cities have initiated additional review requirements or overlay zoning requirements to protect against mansionization problems.

A. Additional Review. To ensure adequate application of bulk requirements, some jurisdictions have initiated additional review and regulation requirements for additions of second stories or any expansions greater than a set percentage of the existing building area. Some communities even require a notification and comment period for adjacent property owners when two-story construction is proposed.

For example, in Menlo Park, California, a two-tier system of review was established. If construction meets the requirements for lot area, floor area limits, lot coverage, setback, daylight planes, permeable surface, and other basic elements, an applicant can merely file for a building permit. If, however, the owners of adjacent properties approve, more permissive standards could be applied (up to a set limit) including setback encroachments, and more daylight plane flexibility upon review by staff. Failure to gain neighbors' approval requires approval of necessary permits by the Planning Commission.

B. Overlay Districts:

1. One solution is to implement historic districts, where eligible and appropriate. Historic districts aim to protect a community's historic significance in terms of the contribution to the national, state or local pattern of history. Design guidelines which restrict mansionization are implemented and enforced to ensure protection of these resources. Alterations to the house are reviewed by a historic district commission, which determines if they are appropriate to the community based on established criteria.

Of the properties identified for potential mansionization expansion in Rockville, only a small number are currently designated in an historic district. While current exterior alterations guides for Rockville's Historic Resources regulate exterior materials, roofing, windows and doors, and color selection, these may or may not be the types of regulations to apply throughout the city. Under the guidelines, new additions must respect the building's character and protect the neighborhood's feel. New additions are encouraged



in back and not up. While these are potential guidelines that Mayor and Council may wish to pursue, if historic district overlay is chosen, these guidelines will be further reviewed for their impact on mansionization.

2. Conservation overlay districts are another technique that imposes zoning and development standards that reflect the existing conditions. This works well in an architecturally cohesive community with the same basic character, height of buildings, and style. It does require research and documentation of existing conditions to back up the new development standards.

Annapolis has imposed conservation districts with its Eastport District, which sets a height standard for each block based on the existing residential height. Cities in Kentucky have used neighborhood conservation districts in both urban and suburban communities. In both cases, the adopted guidelines deal with lot size, configuration and lot layout as well as setbacks, height, lot coverage and architectural design. (Some examples are: prohibiting front-loading projecting garages in areas where detached rear garages predominate; and prohibiting cul de sac subdivision where square lots fronting the street are normal.)

These districts may be implemented either by guidelines or adopted as regulations, thus having the force of law. Newport Virginia has an intense educational program that persuades new builders to construct compatible new homes and additions via a design handbook. This tends to work best, however, if the area is largely owner-occupied and not the target of individual infill developers.

Applicability:

Many subdivisions were created as approved Planned Residential Unit Developments or Comprehensive Planned Development that have established guidelines and review procedures for additions and new constructions. Other subdivisions have Homeowners Association Review for exterior modifications and new construction. These areas do not need an additional overly district and review process. Examples are: Some portions of Rockshire, Fallsmead, New Mark Commons, Carter Hill, Fallsbend, Flint Ledge Estates, Rose Hill Falls, Rose Hill, King Farm and Fallsgrove.

Mansionization controls may be appropriate for older areas still covered by the traditional Euclidian zoning. This would include West End Park, East Rockville areas including Lincoln Park, College Gardens and Twinbrook. Community support is essential. Conservation districts do not succeed unless the community actively supports the program. Some incentives, such as workshops on design and the process may help. For many neighborhoods, stability and clear future direction are incentive enough.

C. New Definitions and Permitting Requirements— An additional alternative to minimize the impact of mansionization is to redefine "demolition" and "substantial alteration" to



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encourage less destruction to the original dwelling and promote appropriate additions as an alternative to complete demolition.

Under current Rockville standards, reconstruction requires only a building permit. If there are encroachments or the building is too high, Planning Staff will delay issuance of a permit until the problem is resolved. Additionally, the current definition of reconstruction is vague, leaving no set standard to apply throughout the city.

With regard to nonconforming uses, there is a more defined guideline for reconstruction. The Zoning Ordinance has a provision that if more than 50% of a nonconforming structure is destroyed or damaged, then any nonconformity must be corrected. There is no specific section in the Zoning Ordinance that address reconstruction. Section 25-164 addresses the fact that the only structural alteration that may be made to a structural nonconformity is their removal. Section 25-165 provides for its removal if more than 50% is damaged or destroyed.

V. CURRENT STANDARDS

The tables of development standards that are currently applied to construction or reconstruction from § 25-311 of the Zoning Ordinance are attached at the end of this document for reference.

VI. RECOMMENDATIONS

A. The first policy under the Housing section of the Master Plan is to encourage the maintenance and upgrade of existing housing stock. It is, therefore, not the goal of the city to restrict maintenance, but certain steps are needed to protect against the negative implications of mansionization. There is no one-size-fits all answer the mansionization issue. After evaluating the pros and cons of mansionization, the staff makes the following recommendations for the Mayor and Council's consideration.

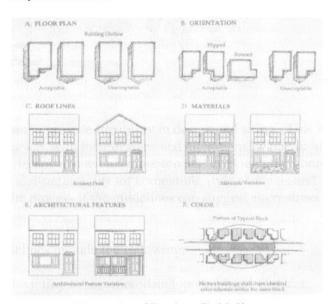
- 1. Limit any mansionization regulation to the 3 smallest-lot zones—R-60, R-75, R-90. Beyond these, the lot sizes and related setbacks are large enough that the perceived impact is substantially reduced.
- 2. Modify and add definitions for demolition and substantial alteration. Current definitions are too lenient and thus must be adapted for today's values. Substantial alteration should include the tear down of more than 50% of the original walls. Demolition should include teardown of the roof, foundation, and two or more of the original exterior walls. Additionally, leveling the house to the foundation (keeping the foundation intact) should also be considered demolition.
- 3. Establish policies and procedures for the establishment of neighborhood conservation districts. Such a process is currently being considered for the Lincoln Park area as a part of the neighborhood planning efforts currently under way. Such districts should include



design guidelines to provide flexibility in design and siting. This will give property owners more leeway with their designs and alterations, which in turn creates a more interesting streetscape and avoids monotonous "cookie-cutter" homes. The City might offer examples and suggestions for compatible style elements and alterations. This will also speed up the process if the guidelines can suggest alternatives that do not require extensive review.

Suggested guidelines include the following:

- a) Adequate flexibility to accommodate topographical features;
- b) Adequate setbacks to maintain all four facades of the dwelling;
- c) Setbacks to compensate for shadow casting;
- d) Area limitations for accessory uses, such as garages, sheds, and pools; and
- e) Roof and entry alternatives.



Example of Design Guidelines

The neighborhood conservation districts should be initiated by the neighborhoods themselves, rather than be dictated by the City. The process should likely be similar to the current process for designating historic district zones in the City.

4. As a potential adjunct to the conservation district concept, consider requiring additional side yard setback for height above a certain level. Our initial recommendation would be two foot of additional side yard setback for each foot of height above 25 feet. Twenty-five feet is high enough to accommodate a typical two-story house. The recommended two-to-one ratio would mean that a 35 foot high building would have to be set back an



additional 20 feet beyond the minimum side yard setback on each side. On a minimum-width 60-foot R-60 lot, the maximum height house could be only 20 feet wide, certainly an undesirable design.

- 5. As part of the comprehensive review of the zoning ordinance, revise bulk standards in zoning code for smaller residential districts, especially height requirements and the measurement of height.
- **B.** Although not directly a part of this issue, the Mayor and Council may wish to consider make existing historic houses non-conforming that may not meet today's zoning standards. These houses are also considered structural nonconformities, and cannot be replaced in kind if substantially damaged. Since these structures help define the character of the historic district, they should be allowed to be replaced in kind.

VII. CONCLUSION

There are two sides to consider with regard to mansionization, potential costs and benefits. Regardless of whether mansionization is deemed a threat or a natural cycle for communities, it is a matter deserving attention. If ignored, larger in-fill homes could suffocate a community quickly and erase the elements that make that area unique. Communities must work with their residents, government, and outside developers to determine the best approach in ensuring that they do not lose the character of their neighborhood.

In-fill housing may help discourage sprawl; however, it will not eliminate the problems of sprawl altogether. It is possible to control the scale of the in-fill housing, while at the same time discouraging sprawl. It is possible to dissuade people from building structures that take up more space, and encourage more luxurious models that repeat the scale of the buildings around them. The customized guidelines made for each neighborhood can assist with this negotiation. Likewise, the staff does not want the community to lose the opportunity for improvement. Improvements can be made to the homes and lots without competing with the existing character of the neighborhood. It is the responsibility of the city to make those alternatives apparent and to educate the public on appropriate design standards.

Aesthetics can be regulated when the appearance contributes to the district's character. The staff suggests designating conservation districts in order to preserve the unique architectural and historic characteristics of certain neighborhoods. The goal of these districts is to recognize when a community shares certain elements, whether they are architectural or historical, and offer them protection to save these elements.

The ultimate goal is to respect the current property owners' community while still allowing for appropriate growth and change. Rockville does not seek to eliminate property rights or stifle the community's wishes to grow and improve. The problem is a matter of scale and awareness of design elements. A delicate balance must be made to support the desired house size without infringing on the rights of its neighbor. The owners should also seek to build a home that blends



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well with the rest of the architecture on the street. Guidelines will help developers and private property owners with their decisions to rebuild or remodel. Awareness and education is the best tool.

ATTACHMENTS:

Pictorial Appendix

Table of Residential Development Standards

Map: Recent Demolition Permits

Map: R-60 Properties by Value and Size

Background Information

Nasser, Haya El. "Mega-mansions' upside: They help reduce suburban sprawl." <u>USA Today</u>. March 13, 2002.

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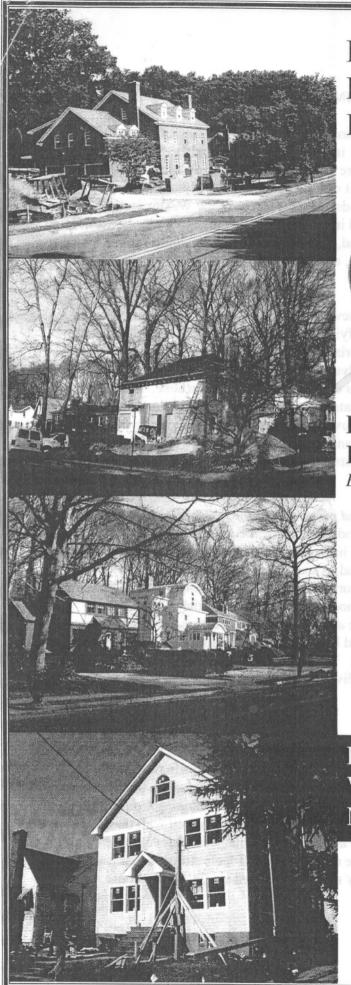
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RESIDENTIAL INFILL DEVELOPMENT IN ALEXANDRIA



Department of Planning & Zoning Eileen Fogarty, Director

Planning Commission Work Session March 9, 2006

I. SUMMARY OF FINDINGS AND RECOMMENDATIONS

The issue of residential infill development, or mansionization – the building of houses that are out of scale and character with a neighborhood – is not unique to Alexandria. Established communities across the country and the region are experiencing similar development problems as builders and property owners use every last bit of land and build large houses to support 21st century living styles in 20th century neighborhoods. Market forces in the Washington, D. C. region have raised property values, and the trend in modern living is toward larger houses. High property values support larger houses on less land, especially for close in single-family neighborhoods, such as in Alexandria, Arlington, and Chevy Chase.

No simple solutions

This infill development report is the product of several months of analysis and work by a large group of planning staff. While it would be satisfying and helpful to present a single and simple conclusion, staff found that the issue in Alexandria is multifaceted and complex and defies a "one size fits all" solution. The infill issue involves the application of technical and detailed zoning regulations and, at the same time, matters of design and subjective taste. It is also contextual, so that what is perceived as appropriate construction in one neighborhood will not be deemed compatible with another. Cities evolve over time: staff found a newspaper article from the 1890s outraged at the onslaught of then new and large Victorian homes which today are held up as models for others to emulate. Thus, what staff is presenting is a "good news – bad news" message on infill in Alexandria:

Importance of site and building design and land preservation for residential neighborhoods

First, Alexandria's older residential neighborhoods are a critical component of the City's
identity. When a new, out of scale home is built in an older neighborhood, long time residents
are understandably concerned. On the other hand, Alexandria appears to have fewer
controversial infill cases than some other local jurisdictions, such as Arlington. One emphatic
conclusion in staff's analysis is that the single most important factor in the success of new
construction in a residential neighborhood is the design of the construction. Another is that more
problematic to a neighborhood than an oversized house may be the painful loss of critical land,
often green area with trees, to new construction. Therefore, the infill issue is important to the
City but it is key to consider not only size of individual buildings but also the use of land in
construction in residential areas.

Alexandria's infill approach

Second, Alexandria's zoning ordinance and development review process has long included more attention to the specific details of infill development than many other jurisdictions. City staff and local architects and builders have been trained and attuned to recognize the importance of detailed decisions in development. The City's decision makers – the Planning Commission, Boards of Architectural Review, Board of Zoning Appeals and City Council – all do a very good job of deciding individual cases, with extensive attention to the nuances of development and its affect on the surrounding neighborhood. On the other hand, staff feels strongly that it would be unwise to require discretionary review for every new or expanded single-family house.

Alexandria's regulatory tools could be improved

As relatively successful as the City has been with infill development to date, it is clear that son... of the City's regulatory tools are difficult to apply well and fairly, and could be improved. Many of the individual achievements in the City's recent history are a result of staff and board efforts to persuade builders to consider alternative approaches to building. Staff and City board members spend an enormous amount of time attempting to achieve reasonably designed construction that fits in well with an established neighborhood. Developers and landowners need to have a clear picture of what is allowed and what specific rules will permit. Staff, board members and applicants often struggle to find solutions to the details of development that could be better managed if the City made some refinements to its approach to infill development.

Staff recommendations

Specifically, staff is recommending that:

- four specific regulatory areas be studied for potential amendment to the zoning ordinance:
 - steep slope restrictions
 - subdivision regulations
 - lot coverage limitations
 - floor area ratio calculations
- the City create a residential conservation design pattern book with design guidelines for builders and architects on infill projects.

The goal of this paper is to frame the infill issue, provide background information, and begin discussion among the City's professional planning staff, residents, landowners, builders and developers, and its decision makers, including the Planning Commission, Board of Zoning Appeals, Boards of Architectural Review and City Council. Ultimately, the City may choose to adopt new or amended regulations to address modern building in its already developed neighborhoods. Nevertheless the discussion needs to balance the harm that infill building can create against the burden of over regulation on individual homeowners.

louble the size of the original house. Some of these projects are developed

II. DEFINING THE INFILL ISSUE IN ALEXANDRIA

When a large new house is built on an already developed street, or when a long undeveloped corner is suddenly graded and staked for new houses, the result may be a traumatic change for an established neighborhood. In Alexandria, the infill issue is typically experienced in one of the following ways:

Tear downs. A vacant single-family lot in Alexandria may actually be more valuable than the same lot with an older house on it. Therefore, a savvy builder may purchase a lot, demolish the existing house and build a new house on the lot. Even if the new house complies with technical zoning and building requirements, it may be much larger than the other houses on the block. Many communities across the country are experiencing the tear down phenomenon. In Alexandria, new homes that comply with zoning regulations only need an administrative plot plan and building permit for approval.

Building additions. Alexandria has not experienced as many "tear downs" as other close-in D. C. suburbs. More typical here is financial investment in an existing home by constructing a building addition. Where houses are smaller than the maximum allowed by zoning, only a building permit is required to expand the house. Whether it is a second floor over the entire house, a large addition in the rear, or an expanded attic and dormer, the result can be a radical change for the neighborhood.



The trend in modern living is toward larger houses. The National Association of Home Builders has noted that the average size of a house has grown from 983 square feet in 1950 to more than 2,200 square feet in 2000. A 1998 American Housing Survey noted that the median size of a detached home in the Washington area was 2,315 square feet. No matter how you count it, there is a trend.

Residential building additions often add significant mass to what had been a small house; some double the size of the original house. Some of these projects are developed at a scale consistent with the original development, incorporating design elements sensitive to the established neighborhood, and others have an opposite effect, creating a new style all their own within the neighborhood. Citizens have expressed concern over a variety of specific building elements including: mass and scale overshadowing smaller neighbors; interruption of established setbacks; inconsistent design and architectural elements (such as front-loaded garages); excessive paved surfaces; oversized accessory structures; and removal of mature trees and open space.

New subdivisions. Throughout Alexandria, there are parcels of land that were never developed, either because they are steeply sloped or otherwise difficult to develop, or because they have been enjoyed as excess land associated with an existing house. With the escalating value of land, builders are now willing to build on difficult properties, and landowners are sometimes willing to sell extra land. Another example of re-dividing land occurs when an existing house is built on a double lot; the house may need to be removed to allow construction on the two lots that zoning permits on the land. From the neighborhood perspective, these leftover lands often define a neighborhood; typically offering green relief or treed areas, and their loss can create a dramatically different neighborhood environment. When the extra land is the equivalent of a zoning lot, then only a plot plan and building permit is required to develop the site. If there is sufficient land for two or more lots, then a subdivision application is required.

Consolidation of lots. Although Alexandria has yet to experience this phenomenon on a large scale, other communities have seen real estate developers purchase a series of lots, a whole block, or even a series of blocks, and propose to redevelop the area, sometimes re-subdividing the land into more modern building lots. The result can lead to significant changes in the City as a whole and can displace households. Staff notes that, given the value of land in Alexandria, and its close in location, at some point the rebuilding of familiar but modest neighborhoods may be attractive to builders.

III. HOW ALEXANDRIA REGULATES INFILL DEVELOPMENT

The Alexandria Zoning Ordinance is the principal tool for determining how much land is required for a house and how large houses can be in specific locations in the City. The ordinance contains a series of provisions addressing the basic form of residential development as well as the details of individual house sites in the City.

Single-family zoning

The great preponderance of land in the City is zoned for single-family development. The single-family zones, R-20, R-12, R-8, R-5, and R-2-5, are similar in content, but the rules vary as to lot size, height, setbacks and house size. These regulations define the legal building area on a property. In order to build a single family house in one of these zones, or to construct a building addition, only a building permit, plus an administrative plot plan in some cases, is required if the zoning regulations are met. For the vast majority of the City, there is no prohibition against demolishing a house and no discretionary review to assure that the design of the house is compatible with its neighbors or that consistency with neighborhood character is achieved.

The one area where the City exercises its authority to regulate design and character is within the Old and Historic Alexandria or Parker Gray Historic Districts; the residential land in the districts is zoned RB and RM. In the historic districts, every new house and every visible building addition is reviewed for its architectural consistency with the original structure as well as with the character of the district as a whole. In addition, demolition is not permitted without Board of Architectural Review approval. Although the City also has several National Register historic

districts, such as Rosemont, Town of Potomac, and Park Fairfax, design compatibility is not locally regulated in those areas.

For any land in the City, should a homeowner wish to build a house or an addition larger than the zoning allows, then a variance may be granted by the Board of Zoning Appeals, which is charged with considering, whether the proposed variance creates harm for an adjacent property owner or the neighborhood. In fact, the BZA hears approximately 75 cases each year and nearly 90% of those cases involve single-family house additions.

Subdivision review and approval by the Planning Commission is required to divide land into building lots or to change lot lines (although not to consolidate lots). As discussed further below, lots must be in character with nearby lots, but the architecture and eventual improvements to those lots is beyond the scope of Commission review.

Beyond the basics of residential zoning, it is also important to recognize those aspects of Alexandria's approach to single family building that are unique. The following circumstances and regulations are not typically found in other jurisdictions and affect the infill issue in both positive and negative ways.

Overzoning

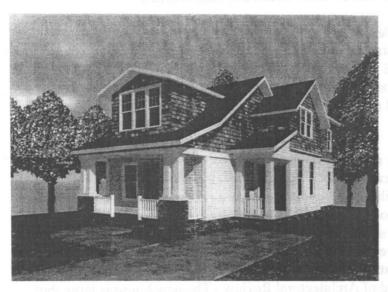
Many of the City's established single family neighborhoods, including Old Town, Parker Gray, Rosemont, Del Ray and parts of North Ridge, were built prior to 1952 when the modern forerunner of the existing zoning ordinance was adopted. Many of the houses and blocks in those neighborhoods were built at the same time, often by a single builder, and thus share a common design and character. Moreover, many of these single family areas are actually "underbuilt," or "overzoned." In other words, the zoning regulations allow a larger or taller house, or one on less land, than has long existed in the neighborhood. As a consequence, a new house proposed for an existing lot on an established block may be legally built to a size not in harmony with the original houses on the block.

Infill Zoning Regulations

Alexandria, with its older neighborhoods, has long recognized the impact that infill development can create and its zoning ordinance incorporates discretionary review of certain special circumstances in residential building in order to protect established neighborhoods. The following are examples of regulations in the zoning ordinance that are not typical in zoning ordinances elsewhere, that attempt to modulate the impacts of residential building on a neighborhood, and that are actually longstanding Alexandria "infill" regulations.

Developed front setback. Recognizing the problem of neighborhoods that preexisted the zoning requirements, Section 7-1000 of the zoning ordinance generally requires that, where a block has been built to a different front setback than the applicable zone has set, a new house or front addition will have to respect the developed setback line. For example, a new house built in a zone that requires a 25 foot setback may be allowed to locate the house only 15 feet from the front lot line if that is the developed setback on the block.

Substandard Lots. Through the SUP process, certain lots that are smaller in size or width than the zoning allows may be developable if a neighborhood study demonstrates that the lot is similar in size to the way other lots on the block have historically been developed. SUP review is required to ensure that the character and scale of the proposed new house will not negatively affect adjacent property or the established neighborhood.



The Commission and Council have seen a number of these cases in recent years. At 29 East Walnut, the approved new house design incorporated a large front porch, massing, scale, and roof pitch, tandem parking, and tree preservation, all consistent with its Rosemont neighbors. Another recent example is located at 500 East Howell Avenue. While it is a large home, its design mimics that of an existing home listed on the National Register of Historic Places on the same street. Design elements such as the front porch

are consistent with the historic fabric of the neighborhood. Large trees were able to be saved as part of the project, and the curbcut was reduced to a single cut allowing for tandem parking. The lot size was consistent with other developed corner lots in the immediate area. These considerations are specific to the special use permit process.

Character language in subdivision regulations. It is a significant feature of the City's subdivision regulations that the Commission is required to review new lots for their consistency with the adjacent properties, and the remainder of the subdivision. This issue is discussed in more detail in Section VII below but is a striking example of an atypical regulation designed specifically to address neighborhood infill issues.

Special exception. In addition to the variance procedures at the Board of Zoning Appeals, which requires a homeowner to show an economic hardship supporting relief, the BZA has adopted an additional technique, the special exception, to address typical cases that come before it and that should require design and neighborhood compatibility review for approval. Under the special exception review, the BZA considers whether a request to alter the zoning, typically for an addition to a single family house, will alter the essential character of the neighborhood, harm adjacent properties, and be compatible with other development in the surrounding neighborhood. Currently applicable only to exceptions to the rules for corner lot fences and yard and setback requirements, the BZA is also considering allowing special exceptions for front yard porches and similar projections.

Floor area ratio regulations. Although the FAR rule is the subject of some debate, it is notable that Alexandria has long included an FAR limitation to govern the overall size of individual houses in the single-family zones. The details of the FAR computation are explained below in Section VII. Many jurisdictions have not included that type of zoning rule in their ordinances for single-family construction. Interestingly, some jurisdictions, such as Winnetka, Illinois, have recently adopted FAR rules as a way to address infill issues and mansionization.

Unusual Circumstances/Exceptional Design in RA and RB Zones. The minimum lot size for residential dwellings in the RA and RB zones is 1,980 square feet, except that the lot size may be reduced with SUP approval to as small as 1,600 square feet – in the case of unusual circumstances or exceptional design. This flexible zoning regulation, with design review, recognizes that, while lot size is a critical component of neighborhood compatibility, design is also important. An example of development under this regulation is a single-family house built at 1000 Princess Street, at the



southwest corner of Princess and N. Patrick Streets, which was also subject to another layer of design review at the Parker-Gray Board of Architectural Review. The new house is large, but includes several elements to blend in with the mass, scale and character of the neighborhood, including a consistent setback and architectural style, as other buildings on the Patrick Street frontage.

Curb cuts. Alexandria recognizes the damage curb cuts can create in older neighborhoods through a complex set of regulations balancing the need for parking against the negative impacts on neighborhood character and the pedestrian experience. Curb cuts are prohibited in Old Town, require BAR approval in Parker-Gray, and, depending on the circumstances, may require additional approvals in the historic areas of Rosemont and the Town of Potomac. At a minimum, under the City Code, all curb cuts are reviewed for their consistency with neighborhood character at the administrative level.

Parking reductions. In order to reduce paving, accommodate new construction and balance the effect of construction on existing neighborhood conditions, an application for a parking reduction SUP may accompany an infill residential building plan. The design of parking on a residential lot can radically affect the design and compatibility of new residential construction and a request to reduce the number of parking spaces, or more typically to allow tandem or reduced size spaces, can greatly improve the design of a new house site, and brings



the development before the Planning Commission and Council for review. The home at 518 East Howell Avenue is a good example because, as originally proposed, garage parking created a "snout" house, with jutting garage; working with staff and the Commission the landowner accommodated tandem parking for two spaces on the lot, and achieved a neighborhood compatible house site design.

Lots without frontage. In order to ensure that new residential development follows the traditional model of blocks, grid streets, and generally rectangular lots oriented toward a street, the zoning ordinance requires SUP approval to create a lot that does not front on a public street. The new home approved at the rear of 219 North West Street is an example of a new lot without street frontage.

Paving restricted to 50% of yard. Section 7-1005 of the zoning ordinance limits the area that may be used for parking, whether paved or not paved, on a residential lot, to a maximum of 50% of a required yard, allowing excess land on a lot to be paved. Fairfax County recently adopted a similar rule in order to promote green areas and reduce the number of cars on residential lots.

Height limit depends on roof type and orientation. In certain zones in the City, such as the RM zone, increased height is allowed if the ridge line of the roof runs parallel to the street and if the slope of the roof is compatible with neighboring buildings.

Private drives not included in lot area. Several years ago, the City amended the zoning ordinance by prohibiting the land used for alleys or drives to count as part of residential lot area. Although the purpose of the new rule was to ensure sufficient land for open space on residential lots, staff has found that the rule has an unanticipated negative effect on infill development. Specifically, on small infill parcels, builders have no incentive to design townhouses with rear parking and garages, because it requires less land area, paving, and construction costs to put the garages on the front of the buildings, where they detract from the street, the architecture and the ability of the new project to be compatible with its surroundings. While builders may be willing to change their design at staff's urging, they will not agree to lose units, which the current rule would require, to do it.

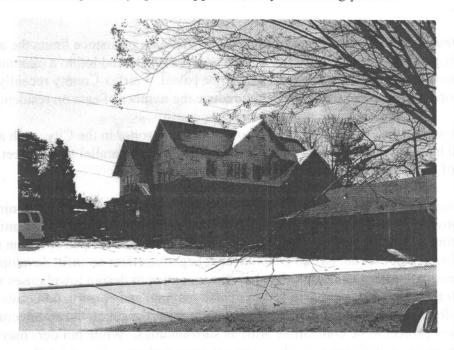
IV. INFILL CASE EXAMPLES and an analysis and the proof of the following a universal and analysis of the company of the company

In order to assess the problem of infill development in Alexandria, planning staff performed an in-depth study of several dozen cases from the last ten years. Cases studied include those that were significantly troublesome at the BZA, BAR and Planning Commission, examples which generated citizen complaints, and those which staff on its own found to be technically problematic. The review included a large number of individual houses, subdivision cases, and cases where citizens were upset at intruding additions, the removal of trees, and setback and design issues. Staff inspected neighborhoods, and reviewed building plans, applications for approval, and citizen concerns; it recalculated dimensions and FARs and assessed board and administrative decisions.

Although staff set out to find common problems with the zoning rules or system that lead to larger houses and neighborhood problems, it discovered that each case includes individualized circumstances and so many variables that there were few common problems. The following case examples are instructive:

2412 Crest Street

The current construction on Crest Street is a typical infill case and a good example of a large house renovation project in an underbuilt neighborhood. The new house complies with zoning in all respects and did not require any special approval, only a building permit.



The Crest Street neighborhood, close to Braddock Road and adjacent to Blessed Sacrament church, is zoned R-8. Each house is required to have an 8,000 square foot lot, a maximum height of 40 feet and a maximum FAR of .35. The lot at 2412 Crest contains 10,000 square feet, allowing a maximum of 3550 square feet of floor area. The builder is maximizing the floor area in the reconstructed home, which includes 3520 square feet. The height and yards comply with zoning rules.

The new house is much larger than the remaining homes on this block, which are fairly regular in size and style. Although the lot is 10,000 square feet and the zone only requires 8,000 square feet, four of the seven lots on that blockface are 10,000 square feet or larger.

The project involves a large addition which essentially adds a second floor and front porch to what had been a one story, rambler. The preexisting style had been consistent with its neighbors; the new house design resembles a different, farmhouse era. The project has raised great concern

with some neighborhood homeowners, although others, including the immediately adjacent homeowners support the project.

Staff believes that, while well designed, the new construction is completely out of harmony with the homes in the neighborhood, although in another Alexandria context, perhaps only a few blocks away, the size of the house would be in character with the neighborhood.

2714 Hickory Street

This house, remodeled by a second floor addition in 2000 is included because it is an example of modern architecture on a street that is more traditional in architectural style. Again, the house meets all zoning rules and the reconstruction work required only a building permit under the zoning ordinance. Nevertheless, it is unusual and arguably out of harmony with its neighbors. Outside of the regulated historic districts, however, Alexandria does not regulate the design and architectural style of houses.



19 Sunset Drive and 217 East Del Ray Avenue

At 19 Sunset Drive, a single family home was demolished and redeveloped with a three-story duplex. The property was already served by two curb-cuts, which accommodated the four required parking spaces for the two dwellings allowed in the R-2-5 zone. While the development complies with zoning, it is arguably out of scale with adjacent dwellings.





Front

Back

Especially as seen from the rear, from Commonwealth Avenue, the building is much larger than its neighbors. The large rear addition, so much larger than the rear of its neighbors' homes, changes the rear building line of homes on the block radically.

A similar instance occurred at 217 East Del Ray Avenue, which was reconstructed with a large addition a few years ago.



In both cases, the new homes complied with zoning. The Del Ray house is on an extra wide lot. The Sunset Drive house is a two family duplex structure. We cite them together however to show the difference that design can achieve with large houses in established neighborhoods. In the Del Ray example, the overall design and especially the front of the house, with its porch and use of materials, are very good example of classic Del Ray architecture. Thus, although a very long house, and deeper than its neighbors, the Del Ray house is compatible with the neighborhood in terms of appearance.

On the other hand, in the case of the Sunset Drive house, its architecture, with its blank walls and front facade garage doors is unappealing. Furthermore, it lacks favorable design elements, such as front porches found in the older dwellings on the street. The Sunset Drive house is also an example of an unsuccessful effort by staff to negotiate design solutions with the developer of the lot. Originally an application for subdivision which staff could not support because of the front-loaded garages, the applicant was not amenable to staff's alternative parking designs, because they required a parking reduction SUP, even though staff would have supported the SUP.

These and other cases confirm staff's understanding of the development process and the City's infill regulations: Whatever regulations are in place, design is a key ingredient in determining what creates a successful infill project. Although required design review is one solution, voluntary design achievements are often equally successful, as with the well designed home at 217 East Del Ray Avenue. Even in the case of 2412 Crest Street, while larger than its modest neighbors, the new house is well designed; under the city regulations, it could easily have been built as a large brick box; the builder chose to create an appealing house design with porches, dormers and gables.

V. WHAT REGULATIONS HAVE OTHER JURISDICTIONS ADOPTED THAT AFFECT INFILL PROJECTS

Regulations on infill development throughout the country range from strict regulation with design criteria to encouragement and education strategies through guidelines and other reference materials. Given the complexity of the issue of infill, jurisdictions across the country have incorporated various regulations and guidelines to achieve compatibility with established neighborhoods.

Regional Solutions: Zoning Regulations

Arlington County

Over the past few years, Arlington County has studied the infill problem, especially as it relates to building height, setbacks and pipe-stem lots. In November 2005, the County adopted changes to the zoning ordinance to decrease the amount that a residential lot that can be covered by houses, accessory buildings and driveways, known as "lot coverage." A lot coverage rule specifies how much of a lot can be covered by the footprint of structures and hard surfaces such as driveways. It is the ratio of the occupied area (buildings and driveways) to the total area of a lot. For example, if the occupied area is 2,400 square feet and the total lot area is 6,000 sq. ft., coverage would then be equal to 40%.

Arlington studied the issue for two years to determine reasonable coverage limits that would protect neighborhoods from very large houses in the future while still allowing reasonably sized houses. Historically, zoning in Arlington allowed homeowners to cover 56% of a lot's total area with a main building, garage and driveway. The new regulations apply to the County's single-family residential districts, and provide a detailed sliding scale approach to the amount of lot coverage based on the size of the lot. The larger the minimum lot size, the smaller the percentage of lot coverage. Generally speaking, the new provisions allow the main house to occupy between 16% and 34% of the lot area, depending on the size of the lot, and provide incentives for front porches and detached garages in the rear yard. The changes do not affect existing houses; however, large additions (50% or more) or redevelopment that constitutes "reconstruction" triggers the new requirements.

Montgomery County

Like Arlington, Montgomery County, Maryland, has experienced significant infill disruption in its close-in, older residential areas. In assessing their infill problem and comparing it to their zoning, and after studying the issue for more than a year, Montgomery County determined that the most problematic aspect of new infill development was the height of homes. To address the height issue, the County lowered the height limits in some zoning districts. It also made a series of technical changes to the method by which height is measured, including the point to which and from which height is measured.

Fairfax County

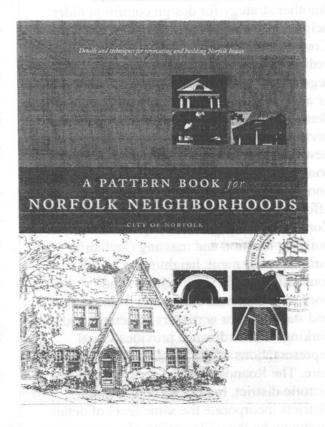
Because of the scope and size of the Fairfax County residential community, with its vast acreage and large number of residential zones, Fairfax planning staff has been studying the infill issue for several years. Their work continues as the County looks at a series of potential changes to its zoning, particularly with regard to lot coverage and methods of measuring height. In addition, the County is also looking at the potential for a neighborhood conservation overlay district and form based coding. Final proposals are not anticipated for another year or so.

Norfolk: Education, Outreach, and Assistance

Specific regulations may not be the answer to every infill issue. Strategies of encouragement and education may be considered either on their own or in conjunction with regulations. Just last year, the City of Norfolk established the Neighborhood Design and Resource Center (NDRC), offered through the Department of Planning and Community Development. The office provides a setting and a program to address neighborhood and housing design issues for the City. Its services include: professional expertise in strategic neighborhood planning, revitalization and design, preliminary architecture and design services for residents, renovation advisory services, education and outreach to raise public awareness about good design, access to financial assistance, infill development consultation, and more. The office is staffed by planners,

architects, and housing specialists, and reviews all building permits related to infill development, providing comments and recommendations. Although the design comments from the office are not required by regulation, many builders incorporate some or all recommendations into final designs.

Norfolk has a number of neighborhoods developed between 1850 and 1950 that are known for their significant history and architecture. As a reference for area builders and homeowners, the City of Norfolk prepared a pattern book on architecture, character and design in its older residential neighborhoods (see attached book). The book is not a regulatory tool, although some of the areas within the neighborhoods covered in the book are in designated historic districts with a formal review process. The book includes detailed guidelines on neighborhood patterns, architectural patterns, and landscape patterns. The more detailed contents of each section include the following:



Neighborhood Patterns:

This section includes information on lot sizes and setbacks, accessory structures, streetscape, and landscape character.

Architectural Patterns:

The architectural patterns section discusses style, massing and composition, floor-to-floor heights, door and window composition, porches, roof pitches, cladding, and other elements.

Landscape Patterns:

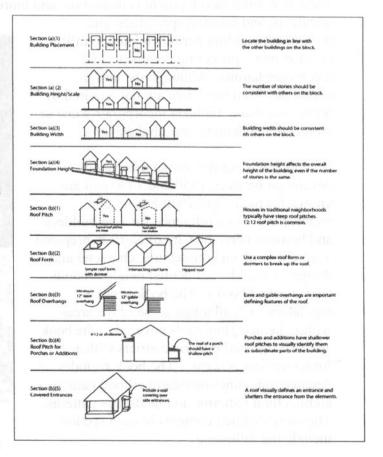
The landscape section includes information on foundation planting, sidewalk edging, hedges, sidewalk paving and driveway paving surfaces, garden features, and other elements.

This comprehensive outreach and education strategy provides resources to the community resulting in a greater consciousness of design issues. The hope is that, with greater community understanding, voluntary implementation will lead to creative design strategies by the building industry.

Roanoke:

Neighborhood Conservation District

Another strategy for design control in older neighborhoods is establishing a Neighborhood Conservation District. A conservation district ordinance accomplishes its purpose by regulating new construction, major alterations or additions to existing buildings, and demolition. Many ordinances contain design review guidelines applicable to additions and new construction. Some only regulate new construction. Roanoke, Virginia, established a conservation district, with zoning rules affecting new and expanded dwellings. Zoning regulations include specifications on building location and massing (including building placement, height/scale, width, and foundation height), roof pitch, window and door arrangements, siding and trim, porches, and standards for accessory structures and parking. The ordinance provides visual representations of the regulations, as shown here. The Roanoke district is essentially an historic district, but not all conservation districts incorporate the same level of detail, as shown by the wide variety of approaches in other jurisdictions around the country.



In fact, conservation districts differ from historic districts in that they provide more flexibility. As explained by Marya Morris in *Innovative Tools for Historic Preservation*, American Planning Association,

Conservation districts are areas, usually residential neighborhoods, with certain identifiable attributes, embodied in architecture, urban design, and history that are subject to special zoning or land-use regulations. The purpose for creating these districts vary somewhat from city to city, but, in general the districts are a land-use or zoning tool used to preserve neighborhood character, retain affordable housing, and protect an area from inappropriate development by regulating new construction. They also can serve as a catalyst for rehabilitation of existing buildings. Conservation districts can be used to protect neighborhoods or districts that have significant architectural and historic merit and a distinct character but that do not qualify for historic district status or have lost some of their integrity through incompatible additions and new development.

For communities in Virginia, a conservation district would be created under the state historic district authority (and in Alexandria, under its charter authority for historic districts), but the rules and procedures within the district could be much more flexible than those Alexandria employs within its historic districts now.

Other Strategies

Outside of Virginia, there are numerous strategies to address design issues of infill development. *Mansionization and Its Discontents: Planners and the Challenge of Regulating Monster Homes*, is a thorough article prepared by the American Planners Association, which examines strategies and results from three communities: Winnetka, Illinois and Sunnyvale and Menlo Park, California (see attached article). A summary of the regulation strategies attempted in these communities, some of which have been approved, then revised, or tried and rescinded, include:

FAR review trigger: Activates special review when FAR exceeds defined limit.

FAR exclusions/bonus features: Establishes incentives/added floor area for removing

existing structures, subordinating garage space, or

specifically placing accessory elements.

Impervious surface coverage: Limits impervious surface or paved surfaces to a specific %

of lot.

Second-story ratio: Limits floor area on second story to a specific size or % of

first floor area to minimize appearance of bulk/build out in

single-story neighborhoods.

Daylight plane: Reduces building mass and projections; ensures light for

adjoining property.

Second-story setback: Reduces appearance of bulk; provides articulation; avoids

"blank wall" effect.

Other setbacks: Limits building projections in front, side, or rear yard to

address privacy or scale issues related to build out.

Special height limits: Reduces excessive floor-to-ceiling height or height

resulting from basement projections.

Design guidelines: Encourages compatibility of new construction in existing

neighborhoods.

Design review: Ensures greater compatibility or consistency with

guidelines when designated thresholds are exceeded.

VI. FINDINGS AND RECOMMENDATIONS

While staff is loathe to understate the issue, Alexandria may not be experiencing as much impact from infill as other jurisdictions, such as Arlington and Chevy Chase, which may have seen even more dramatic real estate value increases than Alexandria has. Nevertheless, when there is a neighborhood problem with an oversized, out of character, structure, it is very traumatic. Staff also notes that there has been a series of recent cases that were troublesome for decision makers, such as the subdivision cases on North Latham Street and Sunset Drive, and the substandard lot case on Laverne Avenue.

Decision Makers

Staff found that the City's decision makers do an excellent job in deciding individual cases based on the longstanding zoning rules crafted to address nuances of building in developed neighborhoods. Planning staff, board and commission members are well trained in the importance of protecting neighborhood character by paying attention to design issues, as well as mass, scale, height and architecture. While citizens may differ as to the approach to individual cases, and neighborhoods may be upset over a particularly large house addition, from a distance of several years, and looking at hundreds of cases, the work done by the BZA, the BAR and the Planning Commission on single family house cases is part of, on balance, a success story. If there is an infill problem, it occurs typically in those cases that only require a plot plan and building permit, not in those that receive discretionary review by the Commission, BAR or BZA.

Staff approach

In individual cases, including those that require only a building permit, planning staff takes an active role in attempting to create solutions for builders as to design, mass, parking, and other issues, and to persuade developers to use those solutions to the benefit of the neighborhood – and often to the financial benefit of the builder. Many individual builders are sensitized to the importance of design and neighborhood issues and assist homeowners to achieve new houses or additions with design elements that help blend in with established neighborhoods.

Design solutions

As outlined above, staff found that the design of a structure, a designer/builder's sensitivity to the neighborhood context is the single most important ingredient in ensuring that new construction is compatible with the character of an existing neighborhood. Furthermore, staff notes that the regulatory process, while helpful, is not the only way to achieve better designs. While one solution to infill would be to require design review of every single family home or addition, far preferable, from both a policy and practical standpoint would be to have builders voluntarily find design solutions that blend in with the established built environment. Staff finds the Roanoke example of neighborhood pattern books, with design guidelines, to be particularly helpful, and is providing Planning Commission members with copies to review.

Problem areas

Where staff found infill problems, they occurred because of the lack of transition with neighboring houses, oversized lots, underbuilt (overzoned) neighborhoods, narrow streets, and deductions allowed by the FAR rule. Staff also noted two particular problem areas in the City. The Fillmore area on the City's western border is severely underbuilt with R-20 zoning and very modest, ranch style houses. The R-20 zoning was historically applied to preserve single-family development, but new homes consistent with zoning exaggerate the overzoning problem. In addition, because of its popularity and modest homes, the eastern part of Del Ray has seen a number of large new and newly constructed homes built. The neighborhood is concerned and the Civic Association is giving special attention to the issue.

Future work

Finally, staff's analysis of the infill problem has uncovered a few troublesome situations that occur and regulations that do not work as well as intended. In addition, staff notes that planning staff, decision makers, neighborhood citizens and developers spend a significant amount of time debating issues related to details of residential development. Staff also is concerned about the future potential for more significant disruption in the City's residential neighborhoods. Therefore, staff has identified four areas for further, in depth study, and potential regulatory solutions. In addition staff believes the City should consider some form of Norfolk's non-regulatory design initiative for Alexandria.

Staff recommendations

Specifically, staff is recommending that:

- four specific regulatory areas be studied for potential amendment to the zoning ordinance:
 - steep slope restrictions
 - subdivision regulations
 - lot coverage limitations
 - floor area ratio calculations
- the City create a residential conservation design pattern book with design guidelines for builders and architects on infill projects.

These issues are discussed in greater depth in Section VII.

VII. TOPICS SUGGESTED FOR FURTHER STUDY

The following pages discuss specific aspects of existing or potential regulations in Alexandria, each of which could form the basis of additional study and new or amended regulation.

STEEP SLOPES

Alexandria does not address development on steep slopes in the zoning ordinance, and it has been suggested that it should. As land becomes more and more valuable, those properties previously considered undesirable or difficult to develop have come to the attention of builders. The City has seen several developments in the last few years on long undeveloped land, such as at Pickett's Ridge, Lloyds Lane, and Beauregard and Armistead. The City's ability to deal with relevant development issues on those sites is restricted without an ordinance that addresses the issue.

What is a steep slopes ordinance?

Very simply, a steep slopes ordinance defines the maximum degree of slope of land that is permitted to be developed. In the most extreme circumstances, development can be prohibited where the grade of land is too great, because the result is harmful to soil stability, requires the removal of trees, the erection of large retaining walls, and otherwise brings harmful results to the community. While still not prohibiting construction, a steep slope ordinance may require additional review, or require development alterations at certain levels of slope.

What do other jurisdictions do?

Several jurisdictions nationwide and regionally include a steep slope regulation in their development approach. In many jurisdictions, including Loudoun, Prince William, Montgomery and Prince Georges Counties, development is not permitted on slopes with over a 25% grade. In addition, jurisdictions frequently reviewed development on land with at least a 15% grade, or require additional performance standards for development.

In addition to these steep slope ordinances, Arlington County elected to use its Chesapeake Bay regulations to address steep slopes that occur adjacent to RPA areas or required RPA buffer areas. For example, if a slope greater than 25% exists adjacent to a required 100-foot buffer, the buffer is expanded to include that slope. The controlled slopes are reduced to 15% along the Potomac Palisades. Development is not necessarily prohibited on these slopes, but typically a special exception is required in addition to a Water Quality Impact Assessment. Through this process, staff reviews impacts to the RPA, especially vegetation and runoff impacts, and requires mitigation and RPA enhancement measures.

Alexandria experience

While Alexandria does not have the mountains that parts of Loudoun and Montgomery County do, nor the Potomac Palisades that Arlington has, it does, especially with regard to the remaining undeveloped land in the city, have sites that are hilly, where development can only be achieved with special technical and engineering attention to stabilizing the soil to hold construction. Building large retaining walls, and running piped water and sewer for longer distances to accommodate such sites, negatively affects the underlying ground and tree root system, causes decline of remaining natural flora, and, with appropriate techniques, may be able to be avoided.

A few recent examples are instructive:

Pickett's Ridge/Buzzards Gap. This single-family house development began with a builder's application to build seven to eight homes on severely sloped land in the west part of the City. 80-90% of the site included 15 to 20% grades. All of it included heavily treed land. The initial site plan proposal removed all of the trees and included extensive use of large retaining walls. As a result of working with staff, the final proposal was scaled down to a total of four single-family homes, and required SUP approval for lots without street frontage, which staff supported. Most of the trees were saved and retaining walls minimized. The change in product and site design was driven by both environmental concerns but also by market. The houses are experiencing successful sales now.

Armistead/Beauregard. This development site plan case was problematic for staff, the Commission and City Council. The proposal included 42 townhouses on a steeply sloped property, but required the removal and grading of hilltops and removal of trees to make it work. Ultimately approved by Council on appeal, neither Staff nor the Commission could support it without the removal of some units to reduce the amount of grading and save some of the treed area. Ideally, a sloped site such as this one should be developed with fewer footprints than townhouses require; a single large condominium building would have suited the site environment better than a townhouse project.

Potential zoning changes

It would not be difficult to amend the zoning ordinance to include a provision, which requires additional review of development on steep slopes. For example, development on slopes greater than 15% could be required to obtain a special use permit, thus allowing greater review and discretion in what might otherwise be a site plan application.

In addition, the steep slope amendment could provide that where possible, development on steep slopes should be avoided, or should be modified to group development so as to avoid the steep slopes. While it would be desirable to help find solutions for a developer to achieve the size, type and scope of development planned, in the proper case the City may want to be able to require a change in product type or potentially a reduction of the number of units proposed in order to respect the natural environment affected by what would otherwise require a change in the natural grade of land.

Who would be affected by a steep slope ordinance?

Using GIS mapping technology, staff can estimate the number of platted parcels of land with differing amounts and degrees of slopes. As an example, if the City applied a steep slope ordinance with a threshold of 10% of a parcel having a slope of 15 % or greater, then a total of 16 vacant single-family residential parcels would be affected. The same threshold applied to oversized residential lots (developed with only one house but enough land for at least two houses), then 346 lots would be affected. If instead of capturing lots with 10% area in steep

slopes, the regulation only applied to those with 20% area steeply sloped, then 273 underbuilt single-family residential parcels would be affected. Individual parcels can be reviewed for GIS accuracy and topographical information is typically part of survey information in development cases.

SUBDIVISION REGULATIONS

The potential subdivision infill problem

Beyond zoning and construction issues with regard to existing lots, the City has recently seen efforts to create *new lots* for building houses. Examples include the recent North Latham Street and Sunset Drive cases, where the size of the new houses proposed would dwarf those in an established neighborhood or where development issues such as parking, location of garages and building design will lead to incompatible development. In addition, the City is seeing the subdivision of long-held, large, undeveloped parcels, such as on Lloyds Lane and North Quaker Lane. In the future, if a developer obtains a whole block, a portion of a block, or a several block area now occupied by small, modest homes, and seeks to redevelop the area, the developer would undoubtedly seek to resubdivide the land into lots more suitable for modern, larger homes.

The subdivision regulations are found at section 11-1700 of the zoning ordinance, and were last revised as the result of a committee designed for the purpose, led by past Commission chair, Bill Hurd, in mid late 1990s. At that time, the regulations were streamlined without radical changes.

The regulations include a series of technical requirements for plats, a requirement that the subdivided lots comply with zoning, and several requirements for access. Technical requirements include, for example, survey information and lot numbering systems. Zoning requirements for lots require that lots have frontage on a public street, and that the size of the lot meets the zoning requirement for size. As to access, the subdivision regulations make clear, for example, that pipe stem lots are not favored and that fire and emergency access is required. Each of these requirements helps assure that new lots for construction are similar to traditional Alexandria neighborhood homes, with houses on streets, room for parking, and enough size to accommodate a house that meets zoning.

North Latham Street subdivision case

On December 19, 2005, Judge Kemler of the Alexandria Circuit Court ruled that Section 11-1710 (B) of the Alexandria Zoning Ordinance may not be interpreted to permit consideration of improvements on the lot when assessing whether 1) the proposed subdivided lots would be of substantially the same character as other lots in the subdivision, or 2) the resubdivision as improved would detract from the value of adjacent properties. The City is proceeding to trial in this matter in early March. At trial, the City intends to show that denial of the subdivision was based on other factors (aside from consideration of improvements on the lot), including for instance the fact that the proposed subdivision would create a new "corner" lot that is not of substantially the same character as the other corner lots in the original subdivision.

Subdivided lots "in character" with subdivision

The subdivision regulations recognize the importance of maintaining neighborhood character, at least as regards the remainder of the subdivision. At section 11-1710(B), the zoning ordinance provides:

No lot shall be resubdivided in such a manner as to detract from the value of adjacent property. Lots covered by a resubdivision shall be of substantially the same character as to suitability for residential use, areas, street frontage, alignment to streets and restrictions as other land within the subdivision, particularly with respect to similarly situated lots within the adjoining portions of the original subdivision.

In the case of resubdivision then, new lots must be of "substantially the same character" as other land within the "subdivision," and especially as to "similarly situated lots" within "adjoining portions of the original subdivision." This prescient regulation, long a part of Alexandria's subdivision regulations, seeks to maintain neighborhood integrity by prohibiting lots that would be so large, so oddly shaped, or so positioned, as to detract from a neighborhood's character. As beneficial as this regulation is, however, its parameters both restricted to a narrow set of circumstances and are not specifically set.

Potential infill solutions

If the Commission wishes to pursue amendments to the subdivision regulations, staff suggests that the "in character" rule could be expanded with additional language to make its effect clearer. For example, language could be added to:

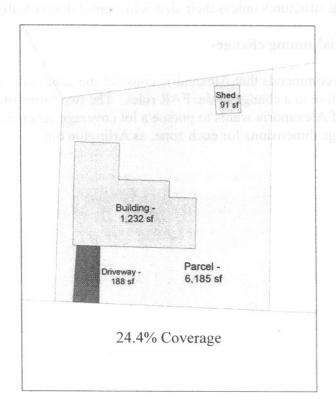
- 1. Make clear what constitutes a "subdivision" and an "original subdivision" for purposes of the provision. Beyond the original subdivision plat document, which is not always readily available, language describing land in the same location with the same features so as to be essentially identical to the original plat may be helpful.
- Make clear what "in character" means in this context. While the regulation does include language on this point, and asks that the City look at elements such as areas, alignment to street, street frontage, etc, there may be additional tests that should supplant or be added to the existing regulation to modernize it. The zoning ordinance already incorporates an objective compatibility test for lot sizes that are consistent with a developed neighborhood as part of the substandard lot regulations. It may be that a similar test could be applied in the subdivision context to support the "in character" requirement of section 11-1710(B).

LOT COVERAGE

What is a lot coverage rule?

One typical zoning regulation for single family homes, that Alexandria does not include in its zoning ordinance, is a lot coverage rule. Lot coverage regulations, typically expressed as a percentage, limit the amount of a lot that can be covered with building or other structures because those elements add to the size and bulk of structures and deplete the open space, yards and openness of the remaining lot area. Alexandria's yard and open space regulations function in similar ways; they are a type of lot coverage requirement.

It has been suggested that Alexandria look at the potential for a lot coverage rule to add to its single family zones. Such a regulation, especially on larger lots, would provide a check on the amount of



hardscape and building that can be included on a lot – even beyond what is required by yards or open space requirements.

What do other jurisdictions do?

Arlington County, which does not regulate single family homes by an FAR rule, has historically applied a lot coverage limit to single family development. Originally set at 50% many years ago, in recent history, the rule has allowed a maximum of 56% lot coverage in all zones. As applied in Arlington in recent history, the rule counts the footprint of the house and accessory structures on the lot, plus any driveway or paved area. In Arlington, the 56% lot coverage rule applied to all SF zones.

As previously discussed, in the last few months, Arlington County changed its lot coverage rule so as to apply a different percentage to different lot sizes, believing that using a sliding scale would help it address the mansionization issue. The new Arlington rules allows more lot coverage in the smaller lot zones, and a descending amount in the larger zones. They also

include bonuses from the calculation for including front porches and detached garages, two character defining features, and addresses oversized lots. Significantly, in Arlington, the most contentious issue related to its new lot coverage rules was how to apply it to existing homes. As adopted by the Arlington County Board, the new rules apply only to new construction, and not to existing structures unless their size is increased dramatically (by 50%).

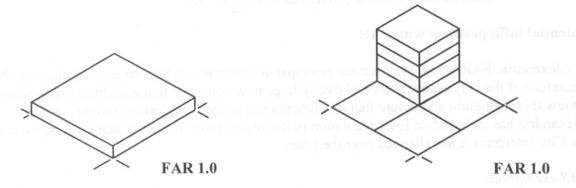
Potential zoning changes

Staff recommends that Alexandria consider the addition of a lot coverage rule, possibly as an alternative to a change to the FAR rules. The two forms of regulation operate to achieve similar ends. If Alexandria wants to pursue a lot coverage scheme, then staff should study the typical coverage dimensions for each zone, as Arlington did.

FLOOR AREA RATIO (FAR)

What is FAR?

Floor Area Ratio (FAR) is the measure by which the Alexandria zoning ordinance regulates the bulk of buildings, including single family homes. FAR relates the amount of *floor area* within a building to the size of the *land parcel* the building is being sited on. It is a flexible measure allowing a variety of building forms, even on the same size parcel, depending on the building's shape and the number of floors within the structure. For example:



Each zone in Alexandria, including each single family zone, includes an FAR amount stated as a maximum. In addition to the lot size, setback, yard and height regulations that define the envelope for single family construction, each zone includes an FAR requirement to further define the limits of development permitted, and the amount is set on a sliding scale depending on the zone.

Zone	FAR max	Lot Size	Maximum Allowable Floor Area
R-20	.25	20,000 sf	5,000 sf
R-12	.30	12,000 sf	4,000 sf and all distributions and time
R-8	.35	8,000 sf	2,800 sf
R-5	.45	5,000 sf	2,250
R-2.5	.45	5,000 sf–single family; 2,500 sf–two family	2,250 sf; 1,125 sf

Although the amount of FAR a building is allowed is found in the relevant zone, the application of the rule is based on the current definition of "floor area" in section 2-145 of the zoning ordinance:

2-145 Floor area: The floor area of the building or buildings on a lot or tract or tract of land (whether "main" or "accessory") is the sum of all gross horizontal areas under a roof or roofs. These areas shall be measured from

the exterior faces of walls and from the eaves of all roofs where they extend beyond the wall line or from the center line of party walls and shall include all space with a headroom of seven feet six inches or more, whether or not provided with a finished floor or ceiling. Excluded shall be elevator and stair bulkheads, accessory water tanks, cooling towers and similar construction not susceptible to storage or occupancy. Basements and subbasements shall be excluded from the floor area ratio computations, but for the purpose of computing off street parking requirements, that portion of such areas as are occupied by permitted uses shall be subject to the provisions of Article VIII.

Potential infill problem with FAR

In Alexandria, FAR is one of, if not *the* principal determinant, of how large a structure can be. Therefore, if the City wants to control overly large new houses or house additions, it is wise to review this regulation and assure that it is functioning as the City desires it to do. While Alexandria has included an FAR regulation in its single family zones for many years, the way the City interprets it has changed over the years.

FAR exemptions

Under the above definition, each horizontal area of floor located under a roof or eave is counted in the calculation, unless the area fits within an exception within the definition. The following areas of buildings are not counted: stairs and stairway, fireplace and elevator shafts, mechanical rooms, and basements that rise less than four feet above the grade. The part of the definition that has proved problematic is the phrase that says that areas to be measured in determining floor area "shall include all space with a headroom of seven feet six inches or more..." For at least 20 years, staff and the development community, have interpreted this phrase to mean that space that is less than 7'6" in height is not counted as floor area. Thus, above ground parking garages, closets, bathrooms, and most attic space were not included in the calculation of FAR.

The 7'6" provision in the FAR definition was probably included originally because of the definition of "habitable space" that was part of the 1993 and prior editions of the Virginia Uniform Statewide Building Code (VUSBC). Habitable space in the VUSBC was defined as having a ceiling height of "not less that 7 feet 6 inches", except that hallways, corridors, bathrooms, kitchens, laundry rooms were permitted a ceiling height of "not less than 7 feet." However, if there was a linkage, it was changed in the 1996 edition of the VUSBC to reduce the required height of all habitable space to seven feet.

In recent years on small scale additions and new construction, Planning staff have taken a more restrictive interpretation of the 7'6" provision, limiting exemptions to the FAR calculation for ceiling height. The rationale is that although the floor area definition expressly requires that all space with a headroom of 7'6" be counted for purposes of FAR, it does not expressly say that space that is less than 7'6" is to be excluded from the FAR calculation. Nevertheless, the 7'6" language is a continued source of difficulty for developers and home owners as well as staff.

Application of FAR rule

With the advent of sharply increasing real estate values, every inch of space in buildings, including in single family homes, has value. Therefore, Planning and Zoning staff routinely deal with builders and homeowners over FAR interpretations, as well as the developers of large projects. Over the last decade, staff finds itself routinely in negotiations with applicants over whether, for example, to count closets and bathrooms within FAR calculations. Some examples of the application of the FAR rule show the issue:

- 1. <u>Historic homes</u>. In Old Town, where most houses are old and built prior to the advent of Building Codes, there are many homes with floor to ceiling dimensions under 7'6." Arguably, under the definition there could be an entire house or large portions of existing homes without any floor area, and therefore not part of the FAR calculation. If such a house is the subject of an application for an addition, then the homeowner could argue that he is entitled to a larger addition than if his entire existing house counted as part of the floor area calculation. The result could be a much larger house than was envisioned in the neighborhood.
- 2. New homes on vacant or cleared land and house expansions In new homes or additions to existing houses, questions of how to calculate the floor area can become issues. For example, residential builders will routinely propose bathrooms, closets and attic space that have ceilings lower than 7'6" and argue for eliminating that area from the FAR calculation. The problem is exacerbated by the use of false ceilings, which can be removed after construction, or the change, sometimes innocent, in the intended use of space. For example, if the built space over a two-car garage is only 7 feet tall and designated for storage, later owners of the property could decide to use the space as a bedroom. If a builder uses a false ceiling initially, there is no after-the-fact inspection to check to ensure that the ceiling remains forever. Another problem is created when builders manipulate the basement exemption by piling up soil and landscaping around the base of a new home to ensure the basement does not extend more than the four feet above grade that the exemption allows.
- 3. FAR Deductions and Above Grade Parking. It is often unsettling to find that large components of new buildings, typically commercial buildings, are able to take advantage of the FAR deduction rule, especially by building above grade parking structures with ceiling heights lower than 7'6." This can account for 15-20%, or more, of a building being deducted from FAR. For example, the office building at 1101 King Street covers almost a full block. The structure contains an office building and parking structure with some retail on King Street. Although a large building by any measure, more than half of the building is not counted as FAR because it is a parking garage with low ceiling heights, excludable as FAR. The result is that the public experiences the bulk of the building but the regulation does not count the bulk in its calculation. Another example is a recent concept application for an automobile use for the construction of a modest office surrounded by a three-level parking structure. If the parking were counted, the proposed structure have a 2.5 to 3 FAR. Because the parking garage ceilings are low, however, the applicant is able to calculate the FAR of the building as .5, in compliance with the zoning.

The effect of these examples is to undermine the integrity of the City's regulations, to make more work for staff who review applications, and to create uncertainty on the part of property owners, developers, and the public at large.

What do other jurisdictions do?

Not all communities use FAR to regulate the size of single family homes. In the recent infill debates in Montgomery County, the discussion focused on height limits because there is no FAR rule for single family in the close-in communities. Arlington County does not include an FAR rule in its single family zones; therefore the infill debate in that jurisdiction focused on coverage requirements. In some jurisdictions with an FAR rule, there are no exemptions from the calculation whatsoever (a gross FAR calculation). In Montgomery County, where FAR does apply, it is a gross not a net figure. And for those jurisdictions that do use a net figure, allowing for some exemptions, it is rare to find one that exempts space with low ceilings. Typical exemptions in those cases involve elevator and stair shafts and true mechanical space.

Past reviews of the FAR definition.

The City has previously considered changing the definition, and the effort has not succeeded. The Zoning Task Force, formed to guide the comprehensive revision of the zoning ordinance adopted in 1992 recommended that the FAR rules be changed to eliminate the 7'6" language. And in the late 1990s, City Council and the Planning Commission considered a similar recommendation. That effort was ultimately tabled for lack of consensus. Attached is the staff report from TA #98-0014, as well as two memorandums from the City Attorney's Office regarding FAR.

Potential ways to modify FAR

1. Elimination of 7'6" language.

The issue with changing the definition to eliminate the 7'6" exemption, or otherwise changing the method of calculating FAR, is one of fairness. In an almost completely developed city, where every structure has been built under the rules existing at the time, to change the method of calculating FAR would mean that many existing structures would become noncomplying because they would not conform to the new rules.

Much of the City, especially the single family homes on the eastern part of the City, were built before zoning, and are today already noncomplying in some way, typically with regards to one or more yard requirements. After the 1992 zoning ordinance change, these homes were made subject to new noncomplying rules, specifically prohibiting an expansion without approval of a variance or special exception by the BZA. The noncomplying label has not deterred homeowners from putting on new, large additions, but it does mean that the BZA gets involved to review the addition, as well as the need to waive the noncomplying rule in that case.

If the FAR definition were to be changed to not allow some exemptions that are now allowed, then ultimately a smaller building would be permitted than is allowed today. With that loss of space previously allowed, some would argue that homeowners are harmed as relates to either the amount they paid for the house or the land, or the size of additions their neighbors have been allowed. The difference could arguably be made up by increasing the amount of FAR allowed in a zone by a corresponding degree. Under this approach the FAR maximums in the single family zones could be increased to allow greater FAR buildings, although the FAR would be calculated under the new rules.

Another option is the potential for applying a new way of measuring FAR only to new construction, which could be defined to include only new structures and additions to existing structures over a certain threshold, and/or only to development site plan cases.

2. Gross instead of net FAR rule.

While similar to eliminating the 7'6" rule, this approach would go further and simply measure the full square footage of each floor to the outside dimension of buildings. This approach was used within the Coordinated Development Districts in Eisenhower East and for those CDDs more recently approved in Arlandria and Mt. Vernon Avenue. While there are no exclusions on floor area, volumetic spaces, such as elevator shafts and atriums, are excluded. We have found that this approach offers the community and the developer more surety that the FAR calculation actually reflects the real mass and scale of buildings. The advantage is simpler administration and better understanding of the zoning code by the public.

In the CDDs where this approach has been applied, detailed analysis was performed to determine the appropriate gross FAR to ensure compatibility of new development with existing neighborhoods. Applying this approach across the board, without adjustment to the allowable FAR, would have the same impact as eliminating the 7'6" exemption rule noted above -- allowing smaller buildings than would be permitted today. Again, to compensate, the difference could be made up by increasing the amount of FAR allowed in a zone by a corresponding degree.

3. Eliminate FAR as a measure for single family homes.

Another idea is to do away with FAR altogether. Some argue that for single family, the true measure of the form and size of a structure can be achieved by regulating height, setbacks and volume, which would be a new zoning regulation for Alexandria. A lot coverage ratio could compliment open space requirements and be a possible substitute for FAR.

4. Other approaches.

Other approaches that could be implemented in single family zones, with or without changing the FAR definition are:

a. Establish a certain threshold for house additions, or replacement houses, at which point the City could require an SUP, variance or other design review approval to ensure compatibility with the neighborhood. For example, for an increase of more than (25%, 50%) of the existing FAR, height or gross footprint, additional approval would be required.

- b. Identify designated and mapped neighborhood conservation areas of the City to limit where the threshold would apply. Areas could be chosen by design, history and neighborhood character and could include a requirement that the approach be favored by the neighborhood.
- c. Because FAR is related to the size of land, larger houses are automatically allowed on larger lots. While the City includes a *minimum* lot size, it does not include a *maximum* lot size regulation. In some neighborhoods, both large houses and large lots would be out of scale and could be prohibited, or at least made subject to additional review.

The FAR issue is difficult, and the City has tried unsuccessfully to address it in the past. Nevertheless, staff is prepared to discuss it and study it further, and to respond to the Commission's direction on the subject.

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Teardown/Mansionization Bulletin: Protecting Older Neighborhoods with Newer Tools Montgomery County, Maryland

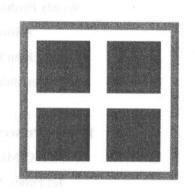
Maryland-National Capital Park and Planning Commission Montgomery County Department of Planning Historic Preservation Section August 2006

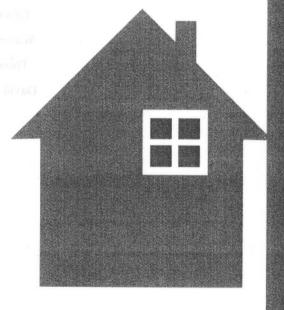












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Teardown/Mansionization Bulletin: Protecting Older Neighborhoods with Newer Tools, Montgomery County, Maryland

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Goals and Methodology

PUTTOSE

This Bulletin was prepared to show a snapshot in time of one county in the state of Maryland grappling with the issue of teardowns and infill development, often referred to as mansionization. The Bulletin is intended as a case study that outlines a variety of planning and regulatory tools available for addressing this issue. The work on the project was partially funded by a grant from the Maryland Historical Trust's Certified Local Government fund, and was undertaken by staff in the Historic Preservation Section of the Montgomery County Department of Planning.

In order to understand the issue, Historic Preservation Section staff attempted to get information and input from both sides of the debate: the real estate/building community and neighborhood residents. One goal of the project was to understand and frame the economic forces in Montgomery County creating this trend. A second goal was to identify the concerns of neighborhoods and communities with regard to the trend. A third goal was to report on the planning and regulatory tools being used in the county by various communities taking action on aspects of the teardown/mansionization trend.

Due to the relatively small nature of the grant, the effort did not involve conducting a completely comprehensive study of the issue, but rather aimed understanding how various. sample neighborhoods have responded teardown/mansionization forces. The Historic Preservation Section worked with several builders and concerned neighborhood residents to analyze the problem, but it did not, by any means, contact every person or organization involved in home construction or neighborhood conservation.

The first step in undertaking the research for the Bulletin involved the convening of a half-day builder/realtor/new homeowner workshop to discuss the issues associated with teardowns/mansionization in Montgomery County. Several builders attended, as did two real estate agents who sell new properties and a homeowner building a large house to replace an older, smaller

house. As preparation for this meeting, the Historic Preservation Section prepared a series of questions, titled "Questions for Builder/Realtor Teardown Workshop" as well as a "Partial List of Issues Associated with Teardowns/Infill Construction." Two staff from the Historic Preservation Section took notes on the content of the meeting, particularly the builders/realtors/new homeowners' perspectives on neighborhood character, housing market trends, the problems of retrofitting existing houses, and issues associated with recently introduced legislation. The group was informed that the Section would be writing a Bulletin on Teardowns and Mansionization, and that their input on a draft would be welcomed. During the course of the next several months, staff had occasion to call a few of the builders/realtors with specific questions.

A second step was to convene a meeting of residents concerned with teardowns/ mansionization. Again, the group was not comprehensive in its geographic scope, but staff made an effort to find people from neighborhoods that had taken action or were contemplating action in the face of teardown activity. Representatives from the Town of Chevy Woodhaven, Green Acres/Glen Cove. Somerset, Kensington, Brookdale, English Village, Greenwich Forest, Woodmoor, greater Bethesda, and the county's civic federation were invited to participate. This group exchanged information on what was happening in the county on the topic. Participants discussed the specific concerns of their neighborhoods, as well as the tools neighborhoods were using or contemplating to retain community character due to loss of buildings and trees. Subjects discussion under included: neighborhood conservation districts, demolition moratoriums, tree ordinances, stormwater management controls, incorporation into municipalities versus remaining unincorporated, design guidelines, local historic districts, etc.

Some of the residents in this group worked together outside the context of preparation of this Bulletin to begin drafting enabling legislation to create neighborhood conservation districts as a tool in Montgomery County. The citizens took the lead on drafting this legislation, with Historic Preservation Section staff acting as a resource on historic preservation issues and current-day county planning

processes. This draft legislation has not yet been introduced.

Historic Preservation Section staff incorporated all the information gained from the meetings mentioned above, and conducted additional research. This research focused on various planning tools being used across the country to address teardowns and mansionization, the monitoring of local events regarding task force efforts on environmental issues and building regulations, and a review of legislation contemplated or introduced by the County Council on issues ranging from building height to forest conservation to stormwater management. All of these factors led to the development of a rough draft Bulletin, which was sent to the builder/realtor/new homeowner group in June for comment. Historic Preservation Section staff actively solicited comments. Comments that were received were considered very carefully. In the case of one builder who supplied detailed,

written comments, almost 100% of those comments were incorporated into a revised draft.

Similarly, as the document proceeded towards completion, staff issued a draft to the neighborhood resident group in July. As with the builder/realtor/new homeowner group, comments that came in were reviewed carefully, and a majority of the comments were incorporated as appropriate into the document.

Finally, the document was reviewed by staff at the County Attorney's office for legal accuracy, by the staff at the Maryland Historical Trust, by the Acting Chief of Countywide Planning, and by the Acting Director of the Department of Planning.

The resulting document provides useful information for communities experiencing a large number of teardowns and infill construction. It is an educational publication that explores a variety of tools that have been used or may be used in the future to address this important planning issue.

Introduction

Although teardowns and mansionization are occurring nationwide, Montgomery County could easily serve as the "poster child" for the phenomenon. The reality in Montgomery County significant numbers of older, modest-sized houses are being razed to make way for substantially larger homes. This is a concern because these replacement houses often are incompatible with the existing height, scale, massing or materials of the surrounding. established neighborhood. Moreover, the resulting increases in lot coverage have contributed greatly to the loss of mature tree canopy and an increase in stormwater runoff. Neighboring property owners also report "quality of life" impacts such as diminished air, light, ventilation and privacy.

This trend is primarily being undertaken by small-scale homebuilding companies, rather than large development firms. These builders have been operating, for the most part, in accordance with existing building and zoning codes. The builders are unified



This brand new house in Glen Echo Heights dwarfs the modest ranch and Cape Cod houses of the original neighborhood, one of which can be seen amongst the mature trees behind it.

in their stance that they are not creating the market, but rather responding to it. According to builders, the current market is demanding large houses in close-in, established neighborhoods. Their clients, ranging from young families to empty nesters, want abundant square footage along with a manageable automobile or Metro commute to downtown and closeness to shops and restaurants. According to these builders, their clients tend to view older, existing houses as "obsolete" or "starter homes" that are appropriate for removal. The neighborhoods hardest hit presently are those west of Rock Creek Park and just over the District border; namely Bethesda and Chevy Chase, but no neighborhood is There are "mansionization" immune. pockets in Kensington, Wheaton, and Silver Spring.

Many socio-economic factors contribute to this extremely fast-paced trend:

- 1) A rise in affluence and buying power within the Washington metropolitan community;
- 2) Land that is valued more highly than existing houses;
- 3) A zoning code that is inconsistent with existing conditions; one that in fact permits as a matter of right, Floor Area Ratios (FARs) and lot coverages at great odds with existing neighborhood development patterns;
- 4) A perspective on the part of the builder community that the cost of repairing older structural systems and/or replacing potentially hazardous materials such as lead-painted surfaces is not money well spent;
- 5) A lack of appreciation for the character of houses built in the second through sixth decades of the 20th century;
- A distrust of traditional historic districts, still the best tool for protection against demolition;

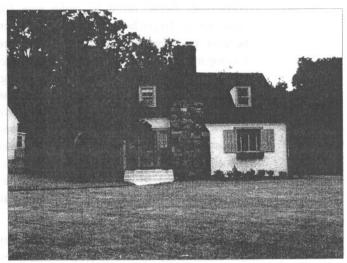
- A growing elderly population which can fall prey to sometimes misleading real estate solicitations; and
- 8) The revitalization of certain downcounty, urban business districts, such as Bethesda and Silver Spring, which makes neighboring lots all the more attractive.

The issue is not just one of the preservation of buildings; it is an issue of preserving the character of older, established neighborhoods and preventing a loss of what is, relatively speaking, more affordable housing. (Not only do smaller houses get torn down for bigger houses, property taxes rise as the neighborhood becomes more affluent.) In other words, the teardown / mansionization trend is not simply about historic preservation; it is about environmental health and protections, neighborhood conservation, and housing that can serve a diversity of people and The issue embraces buildings, incomes. streetscapes, trees, vegetation, open space, water quality, wildlife, and, of course, neighbors.

The challenge lies in finding the point where individual property rights end and community property rights begin. It lies in defining how the other side of the "property rights" coin is "property responsibility." It means recognizing that one person's dream house may become another neighbor's newly flooded basement.

It means exploring alternative tools and new regulations that could have the positive effect of retaining existing community character. Protecting longstanding character traits would prove a benefit to homeowners. It also means recognizing, however, that if those regulations require limits on new construction, current homeowners may lose some portion of their future resale income.

Partly because out-of-scale, infill development has been so rapid in its spread, Montgomery County has not yet developed one specific policy to address the problem head on. Instead, as this bulletin points out, the tools being used in Montgomery County have resulted primarily from grass-roots efforts by concerned citizens working with



This is the type of house most threatened: a modest dwelling in a neighborhood close to downtown that lacks protection by any preservation or planning tools.

the County Council, the Department of Permitting Services, and the Department of Planning. Similarly, the builder community, struggling to keep up with newly changing regulations, has its own share of concerns. Elected officials have responded through regulation targeted at the teardown phenomenon's most quantifiable problems. As a result, Montgomery County is in the midst of analyzing a great number of legislative initiatives. This bulletin should be viewed, therefore, as a snapshot in time of one county grappling with a multi-faceted land-use, environmental, and social policy issue.

The list of tools available singly or in combination to mitigate teardowns / mansionization in Montgomery County thus far includes:

- Traditional Historic Districts
- Overlay zones
- Architectural covenants
- An approved building height amendment to the Zoning Ordinance
- A proposed forest conservation law amendment and/or separate tree ordinance
- A proposed stormwater management amendment
- Demolition moratorium
- Potential Neighborhood Conservation District legislation
- A builder/resident communication checklist

All of these tools are potentially available to at least one or more neighborhoods in the county. Some can apply to the entire county.

At present, most planning and zoning occurs under the umbrella of the Montgomery County Department of Planning and the Department of Permitting Services. When it comes to teardowns and mansionization, however, not everyone is satisfied that the county is the best watchdog to protect the character of established neighborhoods.

Several lower Montgomery County municipalities turned to the state legislature to gain control over mansionization within their borders. On May 26, 2006, state legislation was adopted that will give municipalities the right to adopt stricter controls on the dimensions of structures, including height, bulk, massing and design, and on lot coverage, including impervious surfaces. This authority, granted through the enactment of House Bill 1232, becomes effective on October 1, 2006. In addition, some unincorporated sections of the county are considering incorporation as a means of accessing these new planning



This new house in the Sonoma area of Bethesda rises significantly higher than its neighbors.

http://mlis.state.md.us/2006rs/bill file/ hb1232.html www.nthp.org/teardowns/resou rce_guide.html

Tools: Traditional Historic Districts

For older, established neighborhoods that meet the criteria for historic and architectural significance, there is no for protection against tool better teardowns and inappropriate infill than the traditional, local historic district. To be designated a historic district, however, an area must meet local criteria for older Once an qualification. neighborhood has been designated as an historic district on Montgomery County's Master Plan for Historic Preservation, any exterior alteration to a structure other than maintenance requires routine application for a Historic Area Work Permit (HAWP). Review of such an application falls under the purview of the Montgomery County Historic Preservation Commission. While demolition of contributing buildings within an historic district is not outlawed as a matter of right, it is extremely rare for the Historic Preservation Commission to approve the demolition of a "contributing" building. Instead, the Commission typically works with homeowners to expand smaller houses through sensitive additions. long as such additions are compatible with the overall character of a neighborhood, they are usually approved in one form or another.

A second benefit of local historic district designation is that it requires an added protection for trees over six inches in diameter. Any removal of a tree that size or greater within an historic district requires a HAWP, unless the tree has been

verified as "dead or dying" by a certified arborist.



Top: This Victorian house in Somerset benefits from design standards developed as part of a traditional, local historic district. Bottom: A streetscape in the Takoma Park Historic District illustrates how setback, massing, and overall character can be maintained when historic districts are in place.



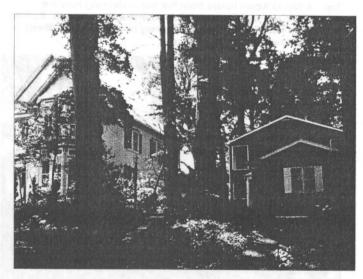
See:

http://www.montgomerycountymd.gov/govtmpl.asp?url=/content/government/AboutGovt/charter.asp.

Tools: Overlay Zones

Another tool on the books in Montgomery County is the overlay zone. Through an overlay zone, a neighborhood's existing character can be partially protected by the adoption and enforcement of stricter building requirements than established under the regular zoning code. Such a zone exists in Garrett Park and could be used as a model for other neighborhoods. See Zoning Code, Sec. 59-C-18.11.

The Garrett Park Overlay Zone was created as part of the North Bethesda/Garrett Park Master Plan, which went into effect in 1993. The overlay zone seeks to "preserve the unique park-like setting of the 19th century garden suburb, maintain the prevailing pattern of houses and open spaces, and retain the maximum amount of green area surrounding new or expanded houses." The overlay standards increase the amount of front, rear, and side setbacks from the street and adjacent properties; limit the maximum percentage of net lot area that may be covered to 20%; and limit the maximum floor area ratio (FAR) to .375. All of these standards are more stringent than those for a typical R-90 zone.



In Garrett Park, the recent, Neo-Victorian house on the left rises much higher than the smaller, older house on the right. Yet the newer house was built in conformance with the overlay zone.

One problem common to all properties within R-90 zones, which includes Garrett Park, is that allowable building height is relatively tall compared to what was built historically. In addition, until recently, the county allowed 35-foot high structures to be measured at the mid-point of the roof and nothing prevented builders from building up the lot's grade to create a "terrace." A terrace, in turn, provided opportunity for an even taller structure.

The Garrett Park overlay zone, while mostly successful in protecting the neighborhood's open space patterns, has been less able to mollify the effects of these taller houses. The problem is particularly acute in new houses with prefabricated, trussed attics. These houses are permitted under the Garrett Park Overlay Zone because the formula used to determine gross floor area does not consider unusable attic space—exactly the type of space contained in houses with trussed attics.

Despite these concerns, Garrett Park citizens decided in the fall of 2005 not to support the adoption of amendments to the overlay zone that would change the definition of gross floor area and how building height is measured. (See next section on Zoning Text Amendment on Height.) The issue of whether or not to amend the overlay zone is still an ongoing discussion.

Tools: Architectural Covenants

Architectural covenants are a third tool teardowns for addressing Covenants are restrictive mansionization. provisions typically created at the time of neighborhood establishment. They include a set of standards that can be legally enforced by covenant beneficiaries. Most are safeguarded by a designated entity such as the initial builder/architect and/or a civic association covenant committee. In some communities, the covenants are allowed to sunset, but most are renewed and therefore remain perpetual. In this way and because they are restrictive--meaning they convey with the lot and are attached to the deedthey differ from zoning laws. Typically, architectural covenants stipulate that new construction must match the character that already exists in the neighborhood and that all new designs must be approved by a design review board. In these ways, architectural covenants can help ensure that an existing housing stock is retained and that additions are architecturally compatible.

A useful case study for assessing the value of architectural covenants as a means to protect community character lies in the juxtaposition of two Montgomery County neighborhoods, Wood Acres and Springfield. The former has architectural covenants, while the latter does not. Wood Acres was developed beginning in 1939 as a neighborhood of modest, two-story, brick Colonial Revival houses. The neighborhood covenants state, in part:

shall be erected thereon, and none begin (sic), nor any change made in the exterior design of such improvements after original construction has begun, unless and until the architect designing the same; the cost, type and size thereof; the materials to be used in the construction, the color scheme; the plans, specifications and details thereof, and the lot plan, showing the proposed location of the dwelling and driveways upon the lot, shall all have been approved in writing by Wood Acres Construction Corporation, or its successors...

Even more pertinent to the teardown phenomenon are the "guidelines" that accompany the architectural covenants. These guidelines stipulate that an owner



Top: A Wood Acres house from the street showing how the subdivision's character is maintained through covenants. Bottom: A different Wood Acres house, showing how covenants direct additions towards the side and rear.



wishing to demolish and rebuild an existing, structurally sound house, must come up with a design that is "consistent with the spirit of the original Wood Acres house" to the point that the lengths of the front, side, and rear elevations shall not exceed those of the preexisting elevations unless setbacks break up In addition, the floor-to-floor the mass. heights of the new house must match those of the pre-existing house. These restrictions create a climate where conservation is prized over newness. As of the date of this bulletin, there have been no demolition requests in Wood Acres. Instead, the houses, which are small by nature (an original footprint of approximately 750 feet





Top: An original Springfield house that was expanded, but attempted to fit in with its neighbors. Bottom: The newer trend: a series of large, new houses that replaced the older houses.

and roughly 2000 square feet of living space not counting a 150-foot screened porch), have almost all received additions of one sort or another. Most houses have seen the one-bay garage on the front of the house infilled to create a year-round room and almost all houses have received some kind of rear and/or side addition. Recently, such additions have been quite sizeable, often doubling the square footage of the houses. While the loss of back- and side-yard trees to accommodate these expansions has not been ameliorated, the character of the neighborhood as perceived from the street has been maintained. Rooflines remain the same, as does the overall scale as perceived by a passerby.

Making existing architectural covenants more protective to prevent teardowns is easier to achieve than enacting covenants in neighborhoods where they do not exist. In order to create architectural covenants anew. each property owner would have to agree to covenants on his/her own property, in addition to senior lien holders such as mortgage companies signing on. Such covenants could, in fact, dictate architectural review criteria and/or stipulate against demolition. While protecting neighborhood, however, covenants might affect purchase price when it came time to sell.

Another opportunity to stem teardowns in older neighborhoods is the selling or donating of easements to local preservation organizations that could protect historic and architectural character in exchange for tax benefits. While façade easements are a common form of this tool, there could, in fact, be easements on development rights as represented by height or massing. Such easements would have to be very carefully crafted, however, to meet stringent IRS criteria for legality and enforceability. As such, they are an unused tool in the teardown kit.

Springfield, immediately adjacent to Wood Acres, is not protected by

architectural covenants and because of this difference, the neighborhood is becoming a study in the domino effect of the teardown/infill phenomenon. Built in the early-to-mid 1950s, the community of brick, split level houses continued to serve families well for housing, but in the 1990s, some owners began looking for more space. One builder began to expand the houses by raising the roofline of the lower level of the split. This approach added square footage to the houses while maintaining the overall character of the neighborhood.

Starting around the year 2000, however, this builder and others began to tear some of the houses down, replacing them with structures at least twice their size. What is evident as one goes through the neighborhood today is that a teardown on one block virtually assures two, three, or four others on that same block's adjacent lots. The newer trend also includes more clear cutting of trees and the construction of houses that do not necessarily attempt to match the exterior character of the original houses

Legislative Initiatives

Legislation introduced in Montgomery County on a number of fronts is beginning to address teardown/mansionization issues. Bills and zoning text amendments aimed at the problems associated with over-scaled buildings, loss of mature trees, and stormwater runoff represent serious efforts by the Montgomery County Council to curtail the multi-faceted impacts of inadequately regulated infill development.

Height Amendment

On October 18, 2005, the County Council closed a loophole in the zoning code by adopting an amendment to improve method of calculating residential building height and reduce allowable building height on single-family houses in the R-60 and R-90 zones. (See Zoning Text Amendment 03-27.) The legislation also revised the definitions of basements and cellars, and added a definition for predevelopment and finished grades. The new zoning text amendment specified a height limit in the R-60 and R-90 zones of 35 feet as measured from the average finished grade



A large house under construction towers over its neighbor, but is built according to code. Such disparities in height prompted citizens to lobby the County Council for zoning revisions.

in front of the house to the peak of the roof, regardless of roof type, or 30 feet, as measured to the mean height level between the eaves and the ridge of a gable, hip, mansard, or gambrel roof (or to the highest point of a flat roof).

While most neighborhood groups view the amendment as a definite step in the right direction, it is not seen as a perfect solution. Neighborhood groups still feel that allowable building heights are excessive. They also are concerned that the new requirements are not being properly enforced. (The County Council's Office of Legislative Oversight will conduct an investigation into the laws applying to teardowns and replacements as part of its Fiscal Year 2007 work program.) Many builders are also less than happy about the new height regulations, viewing them as a directive to design mansard-style or flatroofed structures if they are to obtain higher interior ceiling heights. Builders also indicate that the new rules effectively prohibit the small, creative use of space that might be employed to break down roof massing. A not necessarily welcome result, therefore, may be the introduction of roof design consequences from legislation intended only to solve problems of scale.

Forest Conservation Law Amendment

In addition to over-scaled buildings, nothing has provoked the ire of neighbors more than the loss of mature trees that typically accompanies an infill development project for a large new house. The removal of trees is often viewed by neighbors not only as a loss of community character, but as environmental destruction in the broader sense since trees filter carbon dioxide from the air and cool increasingly soaring temperatures. In Montgomery County, two task forces and a working group were formed to focus on forest conservation and urban tree canopy loss:

The C & O Canal Task Force

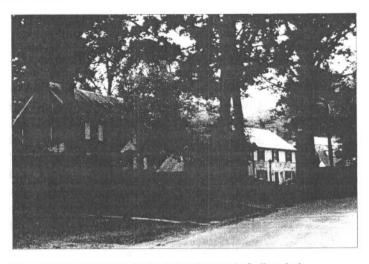
Put into place as a reaction to significant tree loss on a National Park Service property with the assistance of County Council members and U.S. Congressman Chris Van Hollen, this task force is working to improve the county's forest conservation law. Task force members see several weaknesses to the law, including enforcement issues and limited citizen input. The group is concerned that the current law is less focused on tree retention than on reforestation. The goal of the C&O Canal Task Force is to apply the law to a broader area of the county and to create a higher threshold for the removal of healthy, mature

The Montgomery County Urban Forest Alliance

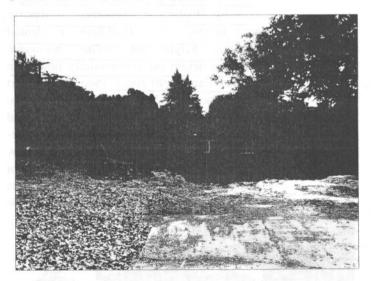
Formed to deal with the loss of tree canopy in more urbanized areas, this informal working group of citizens not affiliated with county government began tackling challenge of crafting a tree and urban forest ordinance separate from the Forest Conservation Law for Montgomery County. Such an ordinance is a tool in other parts of the country and in local municipalities including Takoma Park, the Town of Chevy Chase, the Village of Chevy Chase, and Somerset. In the absence of any ordinance, some unincorporated sections of the county, like Edgemoor, are grappling with the problem by undertaking tree surveys so that citizens can monitor construction that negatively impacts mature trees. Several members of this working group have now joined a Department of Planning task force to continue their efforts.

The Montgomery County Department of Planning's Task Force on the Forest Conservation Law

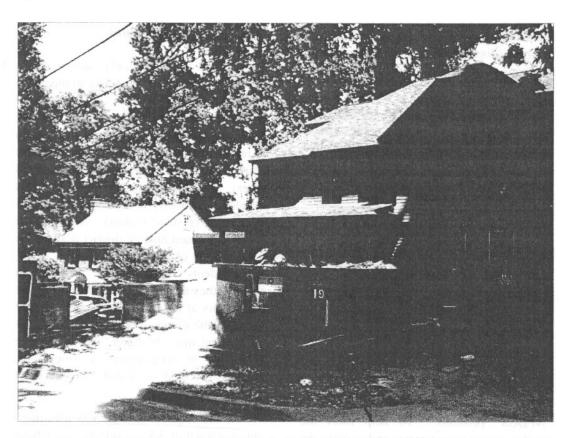
In summer 2006, the Acting Director of the Montgomery County Department of



Top: What was once a typical streetscape in Bethesda is becoming a remnant, as lots are cleared of mature trees for houses of greater scale. At present, there is no obstacle to removing such trees. Bottom: A lot completely cleared of trees while being prepared for construction. In the background is a typical neighborhood house, which is far smaller than what is planned for the construction site.



Planning convened a task force to look at the implementation of the Forest Conservation Law. This task force is made up of knowledgeable citizens, members of the environmental community, representatives of the building community who are working to improve the operation and implementation of the existing law. The original forest conservation law was put in place in 1992 as Chapter 22A of the Montgomery Code. When written, its goal was primarily to protect upland forest in the rural sections of the county. The increasing number and complexity of cases has spurred a reevaluation of how the law is working.



Houses of great size on high ground have the potential for stormwater runoff that causes flooding of others' yards and basements. Builders have a responsibility to implement stormwater management plans for each new house to prevent such nuisances.

In September 2005, several members of the County Council introduced Bill No. 27-05 to amend penalties under the forest conservation law. This amendment was approved, but it is just a first step. The amendment increases the penalties available to be levied upon violators of the law and makes actions against the law not only civil but criminal. Additional staffing and inspection support are still needed, however, to improve enforcement.

Stormwater Management Amendment

If trees are the first environmental issue to be noticed with infill development, stormwater runoff is the second. Several factors have contributed to the predicament:

1) bigger house footprints and massing, 2) the possibility of an artificially raised grade

(at least prior to the height amendment to stop the practice), and 3) an expansion in impervious surface area and loss of soil cover. The result is larger houses that sometimes tower over neighboring houses set at a lower grade, with stormwater runoff trailing onto other people's property (and into their homes) and damaging the County's important stream systems.

The most significant runoff issue resulting from mansionization is surface water on the site that is increased and redirected due to more impervious area and altered topography. Presently, the county does not regulate this runoff because it has no surface drainage grading ordinance. While the stormwater management water collected in ordinance applies to streets, other paved areas, and entire subdivisions, it does not apply to runoff on individual lots at this time. A county grading ordinance controlling water runoff on individual lots would go a long way toward rectifying the problem of nuisance runoff to adjacent neighbors.

Working to improve the existing law, Montgomery County Stormwater the Partners Coalition is a citizens' group that formed to improve stormwater protect streams. management and coalition is advocating that Council Bill 26-05 concerning stormwater drainage and runoff contain language stipulating that a minimal level of on-site infiltration be required on small, individual residential lots in order to prevent further stream damage. The coalition also is pressing the Maryland Department of the Environment, and Montgomery County, to adopt stronger pollution controls through the 2006 renewal of the County's water quality permit under the federal Clean Water Act (National Pollutant Discharge Elimination System, or "NPDES" permits). To help meet the tougher permit requirements and to make the pollution reductions necessary to restore the Anacostia, the Chesapeake Bay, and other waters, the Coalition urged the County Council to put money and programs towards LID stormwater retrofits. These techniques filters bioretention (shallow include depressions in the landscape to collect, filter, and absorb excess water and pollutants), rain gardens, rain barrels, and green roofs. The first result has been a Low Impact Development Retrofit Initiative, approved by the County Council, which provides 1.3 million dollars for retrofitting residential and commercial properties in pilot subwatershed areas downcounty. The initiative is funded from dedicated stormwater fees, and it provides incentive grants to builders who make use of retrofit technologies such as rain gardens and rain barrels. On August 1, 2006, the County Council unanimously passed a resolution supporting higher permit standards asked the County's Department of Environmental Protection to report on ways to address pressing storrmwater issues.

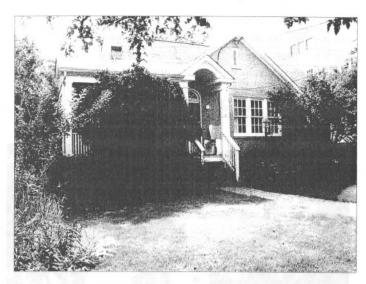
Demolition Moratorium

Citizens are not only active on a countywide basis, but are active in their own municipalities. The Town of Chevy Chase is one neighborhood that has taken a strong stand against teardowns and mansionization in response to the alarming rate at which its houses have been demolished (55 in 4 years). Incorporated in 1918, the town was developed primarily in the 1920s and 1930s by a series of small builders. Although the county proposed historic district designation for a portion of the town in the mid-1990s, its residents opposed the designation because they did not perceive a threat to the community at the time. Startled by the rate at which the community has been losing its houses and trees, however, and by the size and scale of replacement housing, town residents decided on a different course of action.

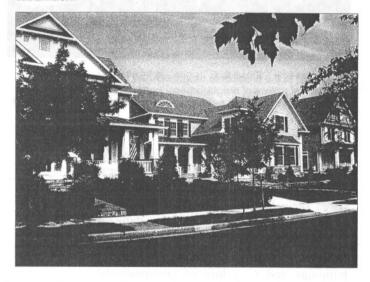
At the request of over 500 petitioners out of a town of 3000 residents, The Chevy Chase Town Council approved an emergency ordinance creating a six-month moratorium on demolitions, additions, new construction, and the removal of trees. The moratorium, adopted on August 10, 2006,



A typical scene in the Town of Chevy Chase, where an older, Cape Cod-style house on the left stands next to a newer, taller, significantly bigger house on the right. This type of new construction prompted residents to successfully petition the Town government for a demolition moratorium.



Top: An original house in this section of the Town of Chevy Chase is a small cottage-type dwelling. It is one of the only remaining original houses on the block. Bottom: The houses directly across the street are all new, giving the impression of a completely new subdivision.



was enacted over the objections of builders and real estate agents who had been active in the neighborhood and a minority of residents concerned about property rights. One builder successfully sued the town, enabling him to build his project during the moratorium period. Other projects were also constructed through a variance process, but overall, the demolition moratorium gave the Town what it needed: time to craft a vision and a plan.

During the moratorium period, the town formed several citizen committees. These committees were tasked with addressing problems relating to visioning and strategic planning, tree protection, stormwater runoff, regulatory review enforcement, setback restrictions, and the need for more authority through state or county measures. In less than a year, the town has a new tree ordinance in place, setback controls, and new enforcement measures. Through its town-wide visioning process, the residents developed a draft strategic planning guide, and, most importantly, succeeded in obtaining authority from the state (as one of several municipalities) to regulate height, bulk, massing, design, lot coverage, and setbacks within its own borders.

Tools: Neighborhood Conservation Districts

No tool is more popular right now in mitigating teardowns and mansionization than the Neighborhood Conservation District tool. Neighborhood Conservation Districts (NCDs) are spreading across the country as an effective means of preserving character of older. established neighborhoods that are not registered as local historic districts. One aspect of the NCD model that is highly advantageous is the self-determination that goes with it. An requires neighborhood usually initiation and a strong level of participation, or 'buy-in,' as part of the NCD application In most cases, any limitations imposed upon demolition or new decided by the construction are neighborhood after crafting a Neighborhood Conservation Plan.

The National Trust for Historic Preservation has published several excellent pamphlets that cover the subject either exclusively or as one of several teardown tools. These publications include: Julia Miller's Protecting Older Neighborhoods Through Conservation District Programs; Adrian Scott Fine and Jim Lindberg's Protecting America's Historic Neighborhoods: Taming the Teardown Trend: Pratt Cassity's Maintaining Community Character: How to Establish a Local Historic District, and the National Park Service issue paper Conservation Districts, a Cultural Resources Partnership Note. As mentioned, the National Trust has also launched an entire website devoted to the subject. http://www.nationaltrust.org /teardowns/resource_guide.html

Neighborhood conservation districts (NCDs) are typically formed in established residential areas having a distinct physical and environmental character worthy of protection. NCDs may be established as

zoning overlay districts or actual re-zonings. Under either approach, special protections are put in place to ensure that the physical and environmental hallmarks of that neighborhood—the development patterns



This street in the Brookdale neighborhood reveals the qualities inherent in potential neighborhood conservation districts: a distinct sense of place, uniform height and setbacks, and mature trees

that comprise its special qualities--remain in place and serve as guideposts for new construction. Neighborhoods that seek NCD status typically are looking for a land-use character-defining protects tool that streetscapes threatened by inappropriate infill, excessive development, loss of buildings and / or loss of environmental qualities. NCDs can be found in Philadelphia, Atlanta, Austin, Chapel Hill, Dallas, Indianapolis, Miami and many other areas. While those examples represent cities, NCD enabling legislation is also on the books in counties as close as Prince George's and as far as Boulder County, Colorado.

Although NCDs vary widely, many provide neighborhood-specific development standards that require *discretionary* review. Such review would include a design review process and/or a general prohibition on

demolition as part of an NCD's legal structure and implementation package. Parameters are developed in accordance with each neighborhood's character and needs. Since the application of standards is to a specific property and the outcome may vary depending on the context, some type of commission is typically required for decision making.

In addition to discretionary review items, many neighborhoods opt for development controls that are *non-discretionary* or *ministerial* in their planning. These controls also come out of



Above: This street in English Village has been in a constant state of construction for years. Almost all of the original houses have been replaced. Below: This new house in Bethesda indicates the trend for double facade garages and paved driveways, regardless of established neighborhood patterns.



the neighborhood planning process and often focus on setbacks, building height and width, roof pitch, floor area ratio, lot coverage, garage location, demolition thresholds, tree retention, and stormwater runoff, etc. Some specify maximum square footage for new construction, based on the average of the existing buildings. Unlike discretionary items, these items can be reviewed by a program administrator defined legally in an ordinance.

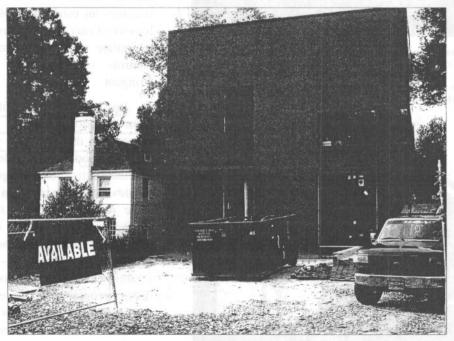
Thus, NCDs have some similarities to local historic districts in that they can involve design review, but they also can have many differences. A key difference between how a traditional, local historic district and a neighborhood conservation district are administered is the latitude in crafting the process for NCDs. As noted, an NCD can be administered by a planning agency or official, by the local historic district commission, and/or by neighborhood review body. Given the detailed, lot-by-lot nature of NCD review, it is particularly appropriate to have reviews handled at a neighborhood level.

One important thing to take into account, however, is that once an NCD becomes an established planning tool in a locality, it may become harder for that locale to initiate traditional historic districts, the controls of which are typically more stringent.

Just how similar or different NCDs are from traditional historic districts largely depends on the guidelines developed by the neighborhoods. In Cambridge, Massachusetts, for example, some of the neighborhood conservation districts have the same review criteria as the local historic districts, except that there is no requirement to review paint color. In the Eastport section of Annapolis, Maryland — where a longestablished neighborhood conservation district program is in place—the situation is quite different. The review criteria there are looser than would be those of a traditional. local historic district. As examples, largescale additions can be added to small houses if they are well placed, and new materials are incorporated liberally, even at the expense of loss of original materials.

Eastport serves as an example of neighborhood emerging trends in conservation district planning. Whereas a traditional historic district often aims for protection of original building materials, a neighborhood conservation district generally more lenient on that subject, while concerning itself more with issues of scale, bulk, and mass. And while demolition of a contributing structure within a designated traditional historic district is rarely approved (unless there are strongly mitigating circumstances), demolition of structures within a neighborhood conservation district may happen, again depending on whether demolition controls are adopted by the neighborhood at the time the NCD is put in good neighborhood place. What a conservation district always achieves, however, is a replacement structure, the height, bulk, and mass of which are in keeping with the existing neighborhood. This positive result is due to the fact that a neighborhood conservation district's parameters for new construction must be stricter than those of the underlying zoning code.

The value of NCDs as a potential planning tool came out of research for this project. In preparing this bulletin, concerned residents and members of the real estate/builder community were asked to provide input and ideas. Out of discussions with residents, it became apparent that many thought the neighborhood conservation district model would be a very effective tool the unincorporated sections of Montgomery County seeking protection of community character, but not opting for traditional historic district status. To that end, a group of residents began reviewing NCD ordinances from other parts of the country, and decided to draft enabling legislation that would allow for the creation of NCDs. This draft legislation has not yet been introduced, but may be soon.



While there is nothing wrong with Modern architecture per se, the scale and massing of this new house in Edgemoor are completely at odds with those of its neighbors.

Tools: Improving Builder / Resident Communication

While many residents have banded together to discuss the issue of teardowns and proposed a number of legislative changes, some builders have actively participated in the dialog as well.

There are many differences to overcome before moving toward solutions. Builders emphasize that they are fulfilling a marketdriven need; namely, the desire for larger houses in close-in, established communities. Builders describe their market as comprised of people who insist on significantly more living space than can be accommodated in older neighborhood houses. For this market, very large kitchens with attached family rooms are the norm, as are extremely generous master bedroom suites and baths, and space for luxuries such as home gyms, family theaters, his and her walk-in closets, and nanny suites. Builders describe their clients as expecting tall ceiling heights (9' to 10' on average) and a dining room capacity ranging anywhere from 10 to 40 people for



In Woodhaven, the original house on the left was turned sideways and moved to accommodate a new house to its right. The existence of two recorded lots allowed such a change. Although introducing a tighter density pattern into the neighborhood, the residents were able to convince the builder not to tear down the original house. The new house also looked to its predecessor for Tudor Revival design cues.

large family gatherings.

When talk revolves around conserving the "character" of a neighborhood, the opposing groups frequently differ in their attitudes. The builder, realtor, and new homeowner communities will tell you that it is the people who make up the character of a neighborhood more than its structures or vegetation. If the people contribute to a community by sharing its values in desiring good schools, easier commutes, and accessibility to commerce, then nothing is lost by the removal of a smaller, older home and its trees. Builders also suggest that change in the building stock promotes a welcome diversity in housing types.

While long-term residents will agree that the majority of new community members want to participate in the neighborhood's life, they will disagree that teardowns and large new houses introduce diversity, either of housing type or of socioeconomic groups.

looking at neighborhoods experiencing teardowns as part of the research for this project, it is clear that an early 20th-century block face can easily become an early 21st century block face almost overnight, with no more or less housing diversity attained in the end. In other words, a block of 1940s Cape Cods can become a uniform block of 2006 Neo-Arts and Crafts mansions within a matter of months. As for the economics, it appears from direct observation for this project that a neighborhood of somewhat varied income tends to become one homogenized even more by affluence. There is clearly a loss of what is relatively speaking "affordable" housing.

Both sides of the issue really only agree on one thing: that the cultural divide between the citizens who want controls on teardowns and mansionization and the builders/new homeowners who participate in the process has reached the point of impasse. One creative suggestion put forward by the builder/real estate group convened for this

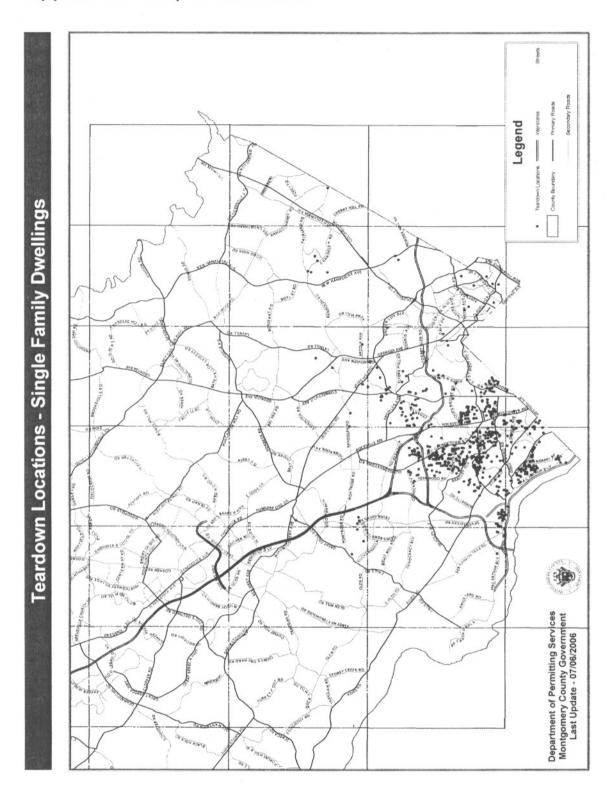
study was to prepare a checklist for builders and existing residents when undertaking any demolition and/or major new construction in established neighborhoods (perhaps at a threshold of a size increase of 50% or more). Such a checklist could improve the climate between the neighborhood and the builders.

One future application of the checklist might be to attach it to an actual building permit so that all questions have to be answered in the affirmative for a building permit to be released by the County's Department of Permitting Services.

Checklist for residents and builders interested in improved communication before and during major additions or demolition:

- Has a pre-construction meeting with the affected civic association been scheduled for project inception? This meeting is the best way for the builder to introduce his/her intended design and for neighborhood residents to explain their concerns. Concerns might include scale, design, trees, stormwater capture, etc.
- Will the builder agree to keep the neighborhood informed at the 5%, 50%, and 90% stages?
- If changes are made to building plans during the course of construction that will be evident to neighbors, is there a system in place so that the builder can apprise the residents of those changes? Is there a main neighborhood contact person?
- If a neighborhood is not within a neighborhood conservation district, has the builder conducted an analysis of the affected block face to inform his design? Such an analysis should include block face averages such as: setbacks, height, lot coverage, floor area ratio, existence and location of garages (if any), existence or lack of driveways and curb cuts, ratio of green space to impervious surface, etc.
- Have the residents also familiarized themselves with the predominant materials and architectural styles of the neighborhood or the block face so that additions and/or new construction can be evaluated for harmoniousness to existing materials and styles?
- Has a new roofline been designed to avoid going higher than the original rooflines within the community, at least from the vantage point of the streetscape?
- Has an effort been made to disguise the allowable mass of any new construction by breaking up the faces of the building into smaller planes, so that what is perceived from the street is in keeping with the existing neighborhood scale?
- Has the builder employed an arborist? If so, has he/she shared the arborist's tree and vegetation survey with the neighborhood, explaining how mature and/or character-defining trees and shrubs will be saved and which trees, if any, are suggested for removal?
- Has the builder explained his/her stormwater runoff plan?
- Have the builder and residents agreed to standard work hours, so as not to disrupt basic neighborhood patterns?
- Have the builder and residents communicated about the setup and cleanup of the construction site so that the builder can operate efficiently, but the neighborhood can retain a reasonably tidy view from the streetscape?

Appendix A: Map of Teardowns





Teardown / Mansionization : Protecting Older Weighborhoods with Newer Tools Montgomery County, Maryland

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